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ORIGINAL COMMUNICATIONS.

ON THE PHYSICAL EXAMINATION OF THE ABDOMEN, IN HEALTH AND DISEASE.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

Although practitioners have long (even before the examination of the chest became a study) been in the habit of proving the condition of the state of the abdominal viscera by means of inspection and palpation, yet it does not appear that any systematic attempt has been made to reduce this mode of investigation to *fixed principles*, which, by rendering it more rational and intelligible, would facilitate and extend its application in practice. The signal aid which the diagnosis of thoracic diseases has derived from the light of physical science, is a sufficient encouragement to attempt the elucidation of abdominal diseases in the same rational point of view. If it be objected, that the signs of the state of the abdomen, being derived chiefly from the touch, are rather to be learnt by experience than taught by precept, it may be answered, that although experience is absolutely necessary for proficiency in all matters in which the senses are concerned, yet a proper analysis of the objects of examination will render this experience much more intelligible and instructive. And this applies as much to the sense of touch as to those of vision and hearing. The *tactus expertus*, a fine delicacy of touch, capable of very nicely feeling and discriminating between impressions, may be more or less acquired by mere experience: but the *tactus eruditus*, the faculty of properly interpreting these impressions, and their differences, includes an exercise of the understanding, and requires a due consideration of the subject in its relations of cause and effect.

In the following papers, I propose to give an outline of the principles of the Physical Examination of the Abdomen, illustrated by facts, which have been supplied by clinical observation. The subject might be extended almost indefinitely in the way of example and further application of the principle; but such prolonged details would be neither con-

sistent with the form and plan of this essay, nor, according to my experience in teaching, calculated to facilitate the task of the learner.

EXAMINATION OF THE ABDOMEN BY INSPECTION.

The shape of the abdomen is determined by the conjoint influence of the walls and of the viscera contained within them. When these are in a healthy state and normal proportions, the shape of the abdomen in front is flat-convex, with slight rounded projections, which give a general rotundity to that region. With slight exceptions, presently to be noticed, the two sides of the abdomen are symmetrical; for, although the contents may differ, the walls, in health, have sufficient weight and tonicity to smooth down the inequalities of the contents. But where wasting or relaxation has rendered the walls very thin or flaccid, as in the aged and emaciated, the contour of the viscera may often be seen through the walls, and the want of symmetry becomes obvious. We may then sometimes trace the position of the viscera with great precision; and in such cases I have repeatedly seen not only the form of the superficial intestines, but their peristaltic motions also, and the changing prominences and depressions which these motions produce.[1] Such cases are instructive, in showing the varied position of the intestines during life, more accurately than the inspection of bodies after death can do.

Such inequalities and motions, however, are rounded off and intercepted by the abdominal walls in their ordinary state of thickness and tension; and the exterior of the abdomen generally indicates the symmetry of *animal life*. Yet, even through this equalizing surface, a correct eye can generally discern certain projections, constituting the exceptions before alluded to, representing the irregularity of parts, which are the seat of the *organic life* of Bichat. The first of these is at the lower four or five ribs on the right side, which bulge outwards a little more than those on the left, and give a rounder shape to the abdominal portion of this side of the chest. It need scarcely be mentioned, that this is due to the liver; whose weight and bulk infringe visibly on the statuary outline of the exterior. Another intruder on the outward symmetry of the abdomen is the stomach; which very commonly makes known its presence and swelling importance, by a prominence to the left of the epigastrium, including the cartilages of the lower left ribs. In persons who have suffered much from dyspepsia, these cartilages are often so prominent as to attract the notice of the patient; being permanently protruded by the habitual distension of the stomach with air; and this deviation from symmetry remains, although the cause may no longer exist. A slight prominence is frequently perceptible in the right iliac region, and at or below the umbilicus, from an accumulation of air in the cœcum and small intestines respectively.

As these inequalities are most conspicuous when the abdominal walls are thinnest and most flaccid, so they are least perceptible, and may disappear altogether, where the walls are thick or tense. The shape of the abdomen is then more perfectly uniform; but it will yet vary,

[1] On several occasions, I have pointed out this phenomenon to the students; and have further shown them, that this contraction of the intestines could be induced at any given spot by smart immediate percussion.

according to whether muscle or fat predominates in the walls; the former making it more flat, with the symmetrical prominences of the muscles and their divisions; the former giving it a smooth rotundity, with a greater convexity around the umbilical depression, where the layer of fat attains its greatest thickness.

After this brief sketch of the normal shape of the abdomen, and its varieties, we may proceed to notice such alterations, caused by disease, as may be available as signs. In order to inspect the abdomen well with this object, the patient should lie flat on the back, with the arms and legs straight, but relaxed, and resting on the bed. For some purposes, a sitting or standing posture may be preferred. In all cases, the observer should place himself so as to survey both halves of the abdomen at a glance; and for this purpose, standing at the foot or head of the bed, or at a sufficient height on either side, is better than a too close inspection. Of course, all covering should be removed from the abdomen, and a good light fall upon it.

Visible Signs of Disease in the Abdomen. Fæculent accumulation in the intestines usually causes a distension of the colon, which is manifest by more or less irregular prominence in the right iliac, and both hypochondriac, and left iliac regions; and if the small intestines are not also much inflated, the abdomen, although enlarged, has a flattened and irregular surface. Even when the small intestines are distended, there is rarely uniformity in the distension; and if the walls of the abdomen are thin or flaccid, the varying shapes of the most inflated bowels may often be distinctly discerned. The same remark applies to colic; in which, although the inflation may be excessive, and the tension of the abdominal muscles more or less constant on account of the pain, yet the spasmodic contraction of portions of the bowel causes inequalities and hollows in parts, visible to the eye, as they are also palpable to the touch, during the knotty twistings of the colicky spasm. In the meteorismus, or tympanitic enlargement of the abdomen in low fever, and in fatal prostration, the case is different. The distension of the intestines is uniform, wholly unresisted by peristaltic contraction, which is suspended, and the tonicity or elasticity of the abdominal walls is sufficient to give an evenness to the flatulent tumour, which is not observed where the intestines partially retain their tone. But even this uniform tympanitic distension (besides the differences to the touch, and to the ear) has a visible distinction in its more globular, or convex projection anteriorly, without the gravitating projections at the flanks or groins, which distinguish a similar degree of distension in ascites.

The chief visible characteristic of ascites, or liquid in the peritoneum, is the smooth roundness of the swelling which it occasions. When the quantity of effusion is small, this may be perceptible only in the most dependent parts; as in the flanks in the supine, and in the hypogastric and inguinal regions in the erect or sitting posture; and the contrast which the smooth fulness of these regions presents to those above, where intestinal and visceral inequalities are more than usually conspicuous, has often attracted my attention in incipient effusion, and led to the conclusive tests of palpation and percussion. When the fluid increases, so as to occupy the whole front of the abdomen, the smooth

rotundity of the enlargement becomes a further evidence of the uniformity of fluid pressure, which, obliterating the umbilicus, gradually expands the abdominal cavity into a large, smooth, and almost polished globe. But the weight of the liquid is also evident, and reveals its nature in the predominant fulness of the lowest parts; and, where the walls of the abdomen are not tense, in the comparative flatness, or less prominent convexity, of the part which lies uppermost. If, however, the walls be put much on the stretch, or there be much gas in the intestines, these are floated upwards, and give more or less prominence, which may remove the flattening proper to the liquid.

In the rare case of effusion of air into the sac of the peritoneum, the surface of the abdomen would be smooth and rounded as in ascites, but more convex anteriorly, and without the ponderating bulge at the lowest parts.

Enlargement of the solid viscera of the abdomen, if considerable, rarely fails to cause some change in the shape of the abdomen, both by their own protrusion, and by their causing an unsymmetrical displacement of the other viscera. A much enlarged liver makes the lower right ribs to bulge outwards, both at the side, in front, and sometimes behind. When the mass extends much below the ribs, it often gives an unusual breadth and prominence to the upper part of the abdomen; and yet this prominence is flatter and smoother than that arising from intestinal distension, which may often be seen below the site of the enlarged liver: change of posture does not materially alter the appearance. Enlargement of the spleen may cause a projection of the lower left ribs at the side in the left hypochondriac region. When extensive, it occupies the whole iliac region, and may reach to the umbilicus and pubis. When the left half of the abdomen is thus filled with the tumour, its smoothness and immobility form a visible contrast with the right side of the abdomen, which is distended by the rounded inequalities of the intestines, and is more affected by the respiratory movements. Change of posture may visibly affect the position of a much enlarged spleen: I have known it to form a visible projection when the patient lay on his face or leaned much forwards. It is very rarely that the kidneys become sufficiently enlarged to affect the shape of the abdomen in front; but I have more than once found a kidney dilated by pyelitis (commonly called abscess) to produce a visible fulness in the lumbar region of that side.

The peculiarities of the enlargement of the abdomen by the gravid uterus have occupied much attention, and form a subject too extensive to be introduced here. Suffice it to say, that although there are considerable varieties in different women, and in the same women in different pregnancies, owing to the condition of the abdominal walls, the quantity of liquor amnii, the mode in which the intestines are displaced, and other circumstances, yet pregnancy beyond the half term pretty constantly forms a visible tumour *above the pubis*, rising more or less high in the abdomen: but whatever the posture and whatever the stage, and whether the distension in the upper part of the abdomen be more or less, there is always a peculiar fulness in the hypogastric region which serves to trace the tumour to the pelvis. In this respect, pregnancy resembles ovarian tumours; and these frequently cannot by their visible

signs be distinguished from it. For although an enlarged ovarium generally occupies the side where it has originated, more prominently than the other, yet when it has attained a large size, it extends over the whole front of the inferior abdomen, and may not project more on one side than the gravid uterus often does. The diagnosis is rather to be sought in palpation, auscultation, and other symptoms. But all these tumours connected with the pelvis are generally visibly discernible from other causes of abdominal enlargement, by their more circumscribed shape, often presenting a terminal projection or outline upwards or at the sides, where the inequalities of the displaced intestines come into view, and vary at different times and in different postures; whilst the mass of the tumour remains little altered, and extends its unbroken continuity to the pubis, with which it is always in close apposition. The distended urinary bladder may form a tumour above the pubis, reaching to the umbilicus, or even higher: it is also to be distinguished by its well-defined upward limit; and its globular or pyriform shape rising from the middle of the pubis, often visibly characterizes it; but conclusive signs are to be found in palpation and percussion.

Tuberculous disease of the mesenteric glands is accompanied by enlargement of the whole abdomen, but the surface is formed by the intestines more than usually distended with air, and pushed by the nodulated masses underneath, forwards in contact with the walls of the abdomen, on which they impress the outlines of their convolutions: the abdominal walls, although tense, are generally so thin as to render their form visible. In my experience, it is very rare for the tuberculous glands to project so far as to reach the surface. On the contrary, in tuberculous deposits on the peritoneum, the result of chronic peritonitis, the solid masses are on the surface, and often form projections or inequalities, visible either at rest, or when the respiratory movements extend to the abdomen.

Malignant disease, when deep-seated, and to a limited extent, only affects the shape of the abdomen in the case of stricture of the alimentary canal; and then, by preventing or increasing its distension with gaseous and other matter. With malignant disease of the œsophagus precluding the deglutition of food, I have known the abdomen so collapsed as to appear absolutely empty, and the aorta could be seen pulsating on the projecting spine. With scirrhous pylorus, I have noticed in some instances a collapse of the lower half of the abdomen, whilst the epigastrium and left hypochondrium have been prominent from the enlarged stomach. In other instances, no such appearance has existed. In stricture of the rectum, colon, or ilio-cæcal aperture, it often happens that the portion of intestine above the obstruction becomes enormously distended, causing a visible prominence in the abdomen: and this may extend so far as to totally derange the ordinary position of the viscera. Malignant tumours connected with the liver, stomach, pancreas, colon, and bladder, may reach so near the surface as to form a visible projection of the walls of the abdomen, and by its shape and position it may give some intimation of its nature.

To conclude, it may be inferred from the preceding illustrations, that the visible signs of disease of the abdomen are constituted by such deviations from its outward form, size, and symmetry, as are obvious to

the eyes; and these become instructive in proportion as they may be referred to known morbid conditions, of the internal organs. In most instances they are not in themselves conclusive, but they are especially valuable in arresting attention at first sight, and in guiding the practitioner to the employment of the senses of touch and hearing, which may give him a more intimate acquaintance with the condition of the internal parts.

(To be continued.)

[*This paper will be continued in the succeeding numbers. We take this opportunity to contradict a report which has been current, that Dr. Williams is connected with this Journal. Except as a contributor of the articles to which his name is attached, Dr. Williams neither has nor ever had any share or cognizance in its composition.* EDITORS.]

ON THE SUBCUTANEOUS BURSÆ: THEIR ANATOMY, PATHOLOGY, AND TREATMENT.

By WILLIAM COULSON, Esq., F.R.C.S.E., Surgeon to the Magdalen, and Consulting Surgeon to the German, Hospitals.

[*Read before the Medical Society of London, November* 23, 1850.]

IT has been remarked, that the anatomy of the lymphatic system was discovered by fragments, the thoracic duct by one observer, the lacteals by another, and the common absorbents by a third; nor was it till after the lapse of ages from the discovery of the first fragment, that a Mascagni appeared, who gave to the disjointed parts the character of unity and of system. The same remark applies to the organs of which I propose to speak.

To Winslow and Albinus may be traced the first notice of certain shut sacs, to which the name of Bursæ Mucosæ has been given, situated beneath certain muscles, or between the tendons and the bones, or between tendons; communicating occasionally with important joints, and formed of a membrane analogous to, if not identical with, the synovial sacs or membranes of the joints. After a time, these Bursæ attracted more notice, and began to be viewed as a distinct system. The second Monro described many not previously observed, and Sömmering followed, who discovered and described many more. The inaugural dissertation of Kosch appeared in 1782; in which he clearly points out the deep Bursæ, shewing that they are sometimes absent, sometimes small, and sometimes double, with bilocular cavities, which might or might not communicate; but, from confounding the deep and superficial systems, his observations are deficient in that order which alone can form the basis of future correct and profitable research. He was also aware of the existence of many of the Subcutaneous Bursæ; but he knew them not as a system, which they really are; he considered them as composed of cellular tissue, and essentially of the same structure as the vaginal Bursæ, and those of tendons and muscles; and he happily remarks, that these superficial Bursæ are not wholly foreign to the subject which he discussed; thus intimating a suspicion of a difference existing, which he did not then clearly comprehend. He knew the patellar and anconal Bursæ, and those

over the distal extremities of the metacarpal bones. In addition to these, which I shall call the system of the deep Bursæ, another system has, of late years, been described, called Subcutaneous Bursæ. It is the history of this system which forms the subject of this memoir.

History. Beclard, in his *Additions à l'Anatomie Générale par Bichat*, published in 1821, makes mention of some of these Bursæ, calling them subcutaneous; but he does not seem to regard them as a system; on the contrary, he constantly confounds them with the deeper Bursæ. At last, in 1825, Schreger published his excellent monograph, *De Bursis Subcutaneis*, in which he unfolds the nature, extent, and situation of these organs, and insists on their being received as one system, distinct from all others. Until this view be clearly comprehended, the pathology of these organs must ever remain obscure, and the treatment of their diseased conditions imperfect.

These Subcutaneous Bursæ are situated in various parts of the body, immediately beneath the integuments, of which they are an appendage. They are connected with, and belong to, the subcutaneous cellular adipose membrane, being in no instance continuous with the deep Bursæ, or with the tendons, muscles, or bones, which they protect. The structures composing them are, first, the capsule itself; secondly, certain filaments traversing it; thirdly, folds, or septa, being reduplications of the inner membrane, and these may be either partial or complete; and fourthly, small adipose corpuscular fringes. There is, also, the peculiar fluid secreted by the interior of the sac. In respect of their being shut sacs, intended to facilitate motion and to protect opposing surfaces, and as regards also the fluid they secrete, these Bursæ have analogies, no doubt, with the deeper Bursæ. In the more perfect synovial capsule of the knee-joint, for example, we not only find a shut sac, but septa forming the alar ligaments; being clearly analogous to the septa of the Subcutaneous Bursæ. Nor does the analogy stop here, seeing that we find the alar ligament so fully developed in some animals, as to divide the knee-joint into two cavities—thus converting it from an unilocular into a bilocular sac: this happens in many of the superficial Bursæ. The Subcutaneous Bursæ vary somewhat in form, and even, perhaps, a little in their structure. In the axilla, for example, where they have, probably, the simplest form, they resemble the cells of a bee-hive piled on each other. In the order of simplicity of structure, those of the groin follow. The mode of formation of these Bursæ in the fœtal state illustrates, I think, their varieties in the adult. For we find, sometimes, that the cellular tissue, in no way modified, takes the place of a properly developed Bursa; and this is exactly what happens up to the fifth month of fœtal life. At other times, in the adult, we find them small, but perfect; shewing that their development has been arrested. Even the anconal Bursa, viewed by Schreger as the most perfect, has been found, by other anatomists, small, contracted, or scarcely perceptible. Pathological changes also, by altering the condition of these Bursæ, reduce them to the tissue, out of which they were formed. Sometimes the interior is filled with a serous fluid, and the walls of the sac are thin, and almost pellucid; at other times they become soft, flaccid, porous, and reticulated, and lose their cohesion,—clearly indicating a retrogression to their primitive condition.

The fluid secreted by, and contained within, these Subcutaneous Bursæ, is held by chemists to be an aqueous solution of albumen, combined with saline matters. The epithelium, common to all true articular synovial membranes, cannot be discovered, even with the aid of the microscope, in the lining membrane of these Bursæ.[1]

It would seem that, prior to the second month of fœtal life, these Bursæ are open. A remark applicable to the entire system I now describe, is, that in youth the capsule is thin and pellucid; as age advances, the Bursæ become opaque and yellowish. Blood-vessels abound on the exterior of the sac. The inner surface of the dermoid segment resembles a serous membrane; the opposing surface, on the contrary, has a synovial appearance; that is, it is soft, pulpy, and as if covered with glistening elevations. But if these two surfaces differ, as has been alleged by Schreger, their secretions may also differ, giving a more complex character to the fluid than was at first supposed.

The Subcutaneous Bursa with which surgeons are most familiar, is the one situated over the patella. This Bursa, which may be called the patellar, is of a globular, or rather oval shape, the base being usually limited by the extent of the bone. The walls of the sac, in contact in the healthy state, are bedewed by a fluid analogous to what we find in the ordinary cellular tissue of the body, performing, no doubt, the function of synovia; like that fluid, as has been already mentioned, it is an aqueous solution of albumen, combined with saline matters.

The patellar Bursa belongs essentially to the superficial or subcutaneous system: it is exterior to the crural aponeurosis; and microscopic research, so much improved and extended of late years, merely confirms the accurate conceptions of Schreger. The epithelium investing the inner surface of the articular synovial membranes, is not found in the interior of this or of any other Bursa. The peculiar glistening fibres already described are found to stretch across at various points, forming septa or partitions, more or less complete. In many persons, two Bursæ, and even three, have been observed developed over one patella, perfectly distinct from each other. This duplification or triplification of the Bursæ is not confined to the patellar Bursæ, but extends as well to others. My friend Mr. Ireland brought me, some time ago, a patient with a Bursa of the size of a marble, situated over the right os magnum, which the patient wished to have removed. I dissected it entire, so that it rolled on the table: in three or four months afterwards, another Bursa, as large as the one which had been previously removed, made its appearance in the same situation. Thus may be traced to an imperfect knowledge of the anatomy of these organs, the theory of accidental Bursæ. When a second Bursa appears after the removal of the first, it is simply the enlargement of a second, coeval with the first, and observed then only for the first time by the surgeon.

In the popliteal space, we usually find three Subcutaneous Bursæ,—an external, internal, and middle. The history of these is curious:

[1] Mr. Toynbee examined for me some fresh fluid, which I removed from a carpal bursa. He says: "The gelatinous matter from the bursa consists of a transparent, viscid, semi-fluid substance, interpersed through which are rounded and ovoid cells, containing granular matter, and having one or two transparent nuclei attached to their inner surface."

with similar relations to all the others, they yet present, when enlarged, certain peculiarities. Both surfaces against which the enlarged Bursa presses being comparatively soft and yielding, the swelling does not assume the distinct globular form which those situated over bones exhibit. A case of this kind came under my notice a few months ago. A young woman, æt. 32, applied to me in July last, with a swelling in the right popliteal space, situated principally in the centre of the ham, and of the size of an orange, though more compressed. It was moveable, free from any pulsatory movement, and, when firmly pressed, gave an elastic feel to the fingers. The integuments were very little changed in colour, and the swelling was free from pain. I entertained no doubt of its nature, and punctured it by means of a grooved needle, when an ounce and a half of a white gelatinous fluid, much resembling the vitreous humour, escaped; a compress was applied over the part, strips of soap plaster over this, and a bandage tightly over the whole. On removing the pressure at the end of a week, a re-accumulation of the fluid had taken place. The swelling was again punctured, and the fluid, which was much less than on the previous occasion, allowed to escape. The pressure was applied in the same way as before, and removed from time to time. No fresh accumulation took place, and at the end of two months she was quite cured. Schreger has described this Bursa, but has given no drawing of it; he does not seem to have met with it in a diseased condition.

There is usually a distinct Bursa over each malleolus; but the external malleolar Bursa is the one most liable to be enlarged or distended with fluid. At one time it was thought, that in club-foot an accidental bursa was formed, to protect the integument at the point of greatest pressure; but this notion has been distinctly refuted. A Subcutaneous Bursa, occasionally of considerable size, very generally exists over the distal extremity of the metatarsal bone of the great toe, close to the joint, and the term bunion has been applied to it when inflamed or thickened. Subcutaneous Bursæ are met with over the trochanter major and tuberosity of the ischium, in the groins, and in connexion with the lower part of the superficial fascia of the abdomen.

Bursæ of this kind exist also, as has been already mentioned, in the axillæ, and over the condyles of the humerus. An enlarged Bursa over the inner condyle of the humerus came under my notice. C. W., æt. 18, applied to me on the 18th August, with a swelling over and a little above the inner condyle. As the patient, a few days before, was stooping to raise something heavy from the floor, he first felt pain in the part, and shortly afterwards discovered a slight swelling. At first, it was like a small indurated gland, but it gradually increased to the size of a walnut. It was unattended with pain, and gave, on pressure, an elastic indistinct fluctuating feel. On the 3rd September, I punctured it, and there exuded about a tablespoonful of transparent gelatinous fluid. Firm pressure was applied, and removed from time to time, and the swelling has not returned.

The Bursa which we may call anconal, as situated over the olecranon, is well known, and is often enlarged. There is also one over the distal extremities of the radius and ulna, and one on the carpus, corresponding to the surface of the os magnum, which is often enlarged. A girl, 13 years of age, applied to me on the 7th September, with a swelling like

a large marble, which had existed six months, and was situated on the posterior surface of the right carpus, over the os magnum. I punctured it with a grooved needle, evacuated a teaspoonful of white vitreous looking fluid. Pressure was applied over the part, and renewed every week for three times. The patient is now quite well.

That Bursæ in this situation may sometimes acquire considerable size, is shown by the following case. E. F., æt. 30, applied to me on November 15th, on account of a large Bursa over the os magnum, and a little to the radial side of it. About eight years ago it first arose, from her husband pressing this part of her hand very hard with his knuckles,—to use her own expression, by "his knuckling her". Immediately after this a swelling commenced, and at the end of a twelvemonth it had attained the size of a walnut. It was then punctured, and near two teaspoonfuls of fluid were evacuated. No pressure was applied; the swelling disappeared, until two years ago, since which time it gradually increased, till it reached the present size. The swelling prevented her from turning her hand back, and from wringing clothes. There was a great feeling of weakness in the joint, and occasional pain in and about the swelling, especially after exertion. On November 18th, I punctured it with a needle. As the case is still under treatment, I am unable to give the result: I feel no doubt, however, of its permanent dispersion.

There is a large Bursa over the first joint of the thumb, and others, often double, over the first and second joints of the fingers. That Bursæ exist in other parts of the body, I have no reason to doubt; one is not unfrequently found under the integuments, at the angle of the jaw; and others, extremely minute, and rarely demonstrable, are said to exist under the integuments of the back, corresponding to the spinous processes of the fifth, sixth, and seventh cervical vertebræ. More extended pathological inquiries may enable us still to discover others; for it is by their accidental enlargement that the presence of some of them has become known to surgeons.

Symptoms and Diagnosis of Enlarged Bursæ. A correct knowledge of the situation, volume, form, and position of the superficial or Subcutaneous Bursæ, will, on most occasions, enable the surgeon to appreciate the character of a tumour due to an increased secretion of the fluid in the interior of these sacs, to a thickening of their walls, or to an inflammatory action set up around or within their tissues. The symptom which naturally first attracts attention, is the existence of an oval, colourless, elevated swelling, in an unusual situation. Should the surgeon happen to be ignorant of the previous existence there of an original Bursal apparatus, for the protection of the integuments and for facilitating motion, he is at first lost in conjectures as to what the swelling may be. This has often happened. But, aware of the existence of the superficial Bursæ, and of the localities which they constantly occupy, the first glance at the case not unfrequently reveals to him all he requires to know. I need not therefore dwell on this symptom, remarking merely, that the tumour may be small or large, moveable, colourless, or deeply inflamed; or occasionally ulcerated on its surface, and discharging pus and serous looking fluids; or, by long neglect and the influence of time, it may appear as a firm unyielding tumour, without fluctuation or elasticity.

Even when uncomplicated, the enlarged Bursæ occasionally, though not uniformly, give rise to symptoms meriting attention in a history of these affections. A certain amount of inconvenience is often felt, varying in intensity with the volume, situation, and condition of the swelling. The enlarged anconal Bursa, for example, may attain a considerable size, and yet give rise to no more inconvenience than a slight sense of weakness after fatigue; even the patellar Bursa may be enlarged without proving troublesome to the patient. But in others, and these, perhaps, form the majority, it is otherwise. Those in the hand, especially the carpal, cause a great sense of weakness; they are unseemly, and the deformity becomes so unpleasant to the patient, as to induce him to request the removal of the swelling at all risks. In like manner, those over the malleoli deform the foot, and cause other inconveniences. Much lameness often accompanies the enlarged patellar Bursa; whilst the enlargement of the Bursa over the first joint of the great toe, produces not unfrequently the most intense suffering. Inflammation and suppuration follow; and death has been known to supervene from such a course, when injudiciously interfered with by the surgeon. Generally speaking, then, the symptoms indicating the presence of an enlarged Bursa are sufficiently well marked to lead to a correct diagnosis.

A knowledge of the course of the tendons will enable the surgeon to discriminate between an enlargement of a superficial Bursa, from that more troublesome and dangerous affection, the enlargement of the deep or profound; and he will regulate his treatment accordingly. Of these I do not speak at present, confining my remarks wholly to the system of the superficial Bursæ. These swellings, then, interfere with the free use of the limbs in which they happen to occur. The integuments may inflame and suppurate, and in this condition the case may for the first instance be brought to the surgeon. If neglected now, they cause intense suffering. The cause of the pain is not uniformly the same. In the enlarged Bursa over the great toe, for example, considerable pressure may be endured, provided a corn has not happened to be induced by that pressure over the enlarged Bursa. When this happens, the pain becomes intolerable, and is seemingly disproportioned, if I may say so, to the other symptoms and appearances; but it is well to know this, for the partial removal of the corn by the knife will often give immediate and great relief. A very usual symptom is a tingling sensation running down the limb, often attended with tenderness on pressure.

The position of the enlarged popliteal Bursa necessitates a careful diagnosis; it may be mistaken for abscess, or for other still more dangerous affections. It is sufficient merely to caution the surgeon on this point.

The detection of enlarged Bursæ in the axilla, and in the groins, and the discriminating them from other diseases, will occasionally require great attention on the part of the surgeon.

Enlargements of the superficial Bursæ have frequently, no doubt, been confounded with encysted tumours; their sequelæ also present difficulties in the way of a correct diagnosis, to be overcome only by a careful observation and history of the case.

Enlarged Bursæ may be either simply enlarged, or the enlargement may be accompanied with inflammation and all its usual appearances.

Erysipelas may arise in the course of the disease; or at least, œdema of the superficial fascia or cellular layer, in which the Bursæ are situated.

Pathology. The morbid anatomy of this system of organs has not been made the subject of any extensive researches. What has been observed amounts to this: the contained fluid, which in health merely bedews the surfaces of the sac, increases in quantity and alters more or less in quality. Originally, perhaps, more complex than chemists suppose (such at least seems to have been the opinion of Schreger), it may undergo further changes, as a result of chronic or acute inflammation. At times, the fluid resembles the outer layer of the crystalline lens, or the vitreous humours; that is, it partakes more of the character of a semi-solid than of a liquid; at other times, it is much more fluid, or it is more serous, obviously less abounding in albumen.

The semi-fluid substance has sometimes a yellowish appearance, at other times a reddish hue; sometimes it is very fluid, of a dark, dirty colour, the product, no doubt, of an inflammatory action. The sac may be wholly obliterated, or its walls so greatly thickened and condensed as to represent a solid tumour; or the enlarged Bursæ may shew a dropsical character, with softening of the inner membrane, perforations, and enlargement of the traversing tendinous cords. The absence of many of these Bursæ may depend, no doubt, on their obliteration in early years from blows, pressure, or other accidental violence.

The morbid appearances found in connexion with the enlarged Bursa of the great toe, have little or no reference to the smaller Bursa itself, but to the deformity caused by the simultaneous displacement of the metatarsal and digital bones of the toe. Nevertheless, when, by a separation or spreading out of the distal end of the metatarsal bones, the head or extremity of the first metatarsal bone becomes so prominent on the inner side of the foot as to be mistaken for an osseous tumour, the integuments passing over it become much attenuated in those cases where the deformity occurs in the adult. If congenital, or occurring in early years, no such attenuation happens. The Bursa itself, on dissection, presents a variety of morbid appearances, according to the progress made by the displacement of the metatarsal bone, and of the phalanges of the toe. The ligaments also undergo changes, but I cannot say that I have ever observed the formation of accidental Bursæ amongst their fibres. Fungous growths have been seen growing from the inner surface of enlarged Bursæ; and ill-conditioned sores are also sometimes present, depending partly on the nature of the surfaces affected, and partly on the constitution of the patient.

Causes. A variety of causes likely to produce enlargement and subsequent disease of the superficial Bursæ, have been stated by systematic writers. Unfortunately, however, by confounding these organs with the deep Bursæ and synovial sheaths of tendons, or by a meagreness of detail, many otherwise interesting observations have failed to improve our knowledge of the disease. The formation of accidental Bursæ I have shewn to be, in every instance, doubtful, whether on the prominent part of the spine in deformities of this column, or in any other part of the body. The inflammation and enlargement of the Bursæ over the great toe, happen how it will, is merely an enlargement of a Bursa already existing there, and not a new formation.

Enlarged Bursæ are frequently ascribed to severe pressure, sudden or long-continued, to blows, or other external violence; and to such a cause, no doubt, many cases may be traced. At other times, Bursæ enlarge wholly independent of any such causes. It has been usual to speak of the enlarged patellar Bursa as "the housemaid's knee," of the enlarged anconal bursæ as "the miner's elbow," etc.; but many cases of enlargement of the Bursæ cannot be so explained. Thus, then, they not unfrequently originate without any assignable cause. It has been said that corns and bunions (diseases very opposite in their nature, though, strangely enough, associated in surgical works), and enlarged Bursæ, ganglions, and tumours, are much more numerous in the rich than the poor; of this, however, I have my doubts. The mechanical causes assigned for the production of the enlarged Bursa over the great toe, and for the deformity of the foot, so frequently preceding re-enlargements of the Bursa, and giving rise to it, can be distinctly refuted. I allude more especially to the theory, that such deformities and diseases are caused by tight shoes.

It merits notice, that those who stand out most for the efficacy of mechanical causes in the production of such diseases, have uniformly avoided offering any explanation of the circumstance,—that the disease I have just alluded to (enlarged Bursa in the deformed foot), appears first not unfrequently in one foot, and is even confined to that foot, be it right or left; but if a rigid shoe were the producing cause, both feet ought clearly to be affected simultaneously. Again, when enlarged Bursæ occur, which cannot be traced to any mechanical injury, it not unfrequently happens that they occur at once in both limbs; this need not surprise us, as the laws of symmetry go far to explain the occurrence. Some have carried the idea of the production of enlarged Bursæ by accidental causes so far, as to include under the same category the actual formation of the healthy sacs, creating the system whose nature I now describe. They have also found Bursæ in situations where I cannot say I have ever observed them; namely, around corns, and between these semi-horny productions, and the true skin: but no such productions exist so far as my observations go, nor are they required to explain the intense suffering arising from pressure over a corn. The wedge-shaped body is at that moment slowly, but surely, growing inwards, piercing the true skin, and tearing its delicate structures asunder. Take off the pressure, or remove the offending wedge, and the pain ceases.

Treatment. It has been shown that many of the Subcutaneous Bursæ of the body are occasionally wholly absent, or, in other words, never were present. In this sense, then, they are not essential structures, at least, not in these persons. But it has also, I think, been proved that such Bursæ, when enlarged, may be obliterated by pressure, or the same result may be effected by pressure and puncture combined; or by inflammation, suppuration, granulation, and consequent adhesion of surfaces; or lastly, when, losing their original character, they have attained, by means of fibrinous deposits, the appearance and nature of a solid tumour, they may be extirpated by the knife, and so altogether removed. These considerations, aided by a sound anatomy and physiology, which we owe chiefly to Schreger, have led me to the adoption of a simple mode of treatment, applicable to most, if not to all cases, of enlarged Bursæ.

Let me first suppose, that a case of enlarged Bursa, unaccompanied with any other affection, no matter where placed, presents itself; that of the great toe need form no exception; an enlargement of the natural patellar, anconal, or malleolar Bursæ; the question arises, how is it to be treated? Abundance of evidence exists to shew, that the treatment by rest and pressure, simple friction, blistering, friction with mercurial ointment, iodine, etc., all but uniformly fail in effecting a permanent cure.

When these fail, recourse is had to a puncture, which, made with a lancet, amounts generally to a short incision; or an incision, more or less extensive, is made into the enlarged Bursa, the contents evacuated, and pressure applied. This method, no doubt, succeeds; but it is unnecessarily severe, and is not unattended with danger, even in the uncomplicated class of cases. But it not unfrequently happens, that before the surgeon has seen the case, inflammation of the integuments, and of the superficial fascia in which the Bursa lies, has set in, with more or less severity. Now, in such cases, the modes of treatment alluded to are clearly inapplicable, and have occasionally been attended with very serious results.

Mr. Key, in an excellent memoir on ganglia or bunion, distinctly refers to a case, in which death happened from the incautious interference of the surgeon. He is speaking of the enlarged Bursa on the great toe, which complaint, when complicated with the peculiar deformity I have already spoken of, he calls bunion. "I have known", he says, "gangrene of the foot and death ensue from opening an inflamed and suppurating bunion; and in three cases, exfoliation of the bones, with a most tedious and painful suppuration of the surrounding structures". He condemns all interference in such cases, in which opinion I coincide, although maintaining very different views, as to the nature of the affection, from those of the distinguished surgeon whom I have just quoted.

The mode of treatment which I prefer to all others, is simply puncturing of the enlarged Bursa with a grooved needle, such as is used for exploring tumours and swellings of doubtful character. After the evacuation of the contents, pressure is applied, by means of soap-plaster and bandage; this is renewed from time to time, and puncture of the sac repeated if necessary. The result is uniformly a permanent and safe cure. If to this we add the almost painless nature of the operation, we have in this mode of treatment all that is satisfactory to patient and surgeon.

When the enlarged Bursa becomes seriously inflamed, we should endeavour, by rest and other means, to subdue the inflammation: nevertheless, a puncture such as I have described may be practised, even in these cases, with advantage to the patient.

In a case of anconal Bursa, accompanied by high inflammation, I punctured the swelling with a grooved needle; pressure was employed; no bad results followed, and the patient recovered. Miss M., æt. 50, applied to me, October 18th, with an enlargement of the Bursa over the right olecranon, the skin being highly inflamed. The inflammation had existed for ten days, and became so severe as to compel her to seek advice. I punctured it, and two teaspoonfuls of dirty looking serous fluid came out; pressure was applied, and at the tenth day she recovered.

Sometimes the integuments over the Bursa ulcerate, and under these circumstances, pressure may also be employed, as in cases of simple puncture. In cases of long standing, when the enlarged sac has put on the appearance of a sarcomatous tumour, excision is no doubt the remedy, having a due regard to the integuments. The mode of treatment by the seton has been strongly recommended by many good surgeons, and I have myself adopted it with success; but a more enlarged experience has convinced me that this mode of treatment, besides being a tedious and unnecessary process, is not on all occasions unattended with danger. I think it only applicable to those cases where the question arises as to their destruction by the seton, or removal by the knife.

The following interesting cases were communicated to me by my friend, Mr. Cocks, of Hatfield, who has kindly permitted me to publish them.

"I had", says Mr. C., "for several years, an enlarged Bursa on the second joint of the left thumb, produced by a blow on the fore part of the saddle, in checking the bridle of my horse. It became as large as a pea, and was rather annoying and unsightly; I punctured it with a lancet, when a pinkish crystalline mass came from it; pressure was applied, and it healed. It soon grew again, and again, and the same operation was repeated. But, tired of this plan, after opening it, I rubbed the inside with a camel's-hair brush, dipped in a solution of nitras argenti (4 grs. to ʒj of water). In a few days, it suppurated; the lining membrane sloughed away; it soon healed, and has been so for more than a year. The next case was under my son. A servant girl, from London, had a very large Bursa on the left outer ankle, just below the end of the fibula, stretching across the dorsum of the foot, about two inches long, and at least an inch wide. She had applied to several medical men in town, all of whom advised 'nothing to be done'. It was opened by my son; solution of nitrate of silver was injected into it, and pressure by compress and bandage applied. In a few days, the greater part of the sac was obliterated; the fluid (which in this was limpid) collected in the non-adhering portion. The same treatment was applied to this part, which was followed by considerable swelling of the foot and leg. The inflamed leg was treated with cold saturnine lotion; but a warm poultice was applied to the tumour, in order to bring on suppuration as soon as possible. The case went on favourably; and in three weeks she was able to go about quite well".

No cases of enlarged Bursæ have attracted more attention than that of the great toe; when painful and enlarged, it is difficult to treat, for reasons I have partly explained. So much confusion prevails in surgical works, as to the true nature of the proper method of treatment of this troublesome Bursa, when enlarged and inflamed, that I may hope to be excused, if I again direct attention to it. The Bursa situated on this part may become enlarged and painful, like any other superficial Bursa, and require, for its relief and cure, the treatment I have recommended. But that which, in a peculiar manner, complicates the pathology of this enlarged Bursa, is the accidental deformity, caused by a projection inwards of the digital extremity of the first metatarsal bone. The phalanges of the great toe itself turn outwards to such an extent as to over-

lap, or pass under, those of the second,—a deformity, in fact, amounting to all but complete dislocation. As the metatarsal bone recedes more and more from the second, the digital extremity seems to enlarge, causing a remarkable prominence inwards of this part of the foot.

In the mean time, as the deformity increases, the bursa is placed, daily, under pressure, more and more severe; the same shoe no longer fits the form of the foot, now much broader in the distal extremity of the metatarsal region; the Bursa enlarges, and becomes extremely painful. A succession of Bursæ form on the same spot; they open, and perhaps suppurate: and cases are stated to have occurred in which the joint itself has been laid open, and caustic applied to the inner projecting portion of the metatarsal bone, as if it were of morbid growth.

The disease, then, in its most aggravated form, that is when complicated with this deformity, consists, simply, in an inflamed Bursa, generally produced by pressure, with a partial dislocation of the great toe, mainly dependent on a displacement inwards of the digital end of the metatarsal bone. As these two affections are quite distinct, though often confounded, I need not here inquire as to the causes giving rise to the deformity. It will be sufficient to observe, that tight shoes, or rather shoes no longer fitting the altered form of the foot, however they may give rise to an enlargement of the Bursa, in no case produce the deformity; for it is now universally admitted that the deformity is most frequently congenital, or comes on in very early life; that it occurs in hundreds who never wore shoes, or boots, and that, even when present, it does not necessarily give rise to enlarged Bursæ. The cases which most frequently came before the surgeon, occur in persons who get the deformity after the meridian of life. The deformity takes place as a result of the weakening of those structures binding together the metatarsal bones; the larger one recedes from the second, and the muscular forces, acting on the great toe, assist in adding to the deformity, by causing it to approach the others. The treatment of such complex cases is exceedingly difficult. It is here that rest, in the recumbent posture, becomes absolutely necessary; the inflammation must be subdued, or allowed to subside. Should a corn have formed on the enlarged Bursa, it had better be cautiously pared down, as the skin has probably become much thinner over the Bursa. When the foot has become tranquil, other questions arise as to the treatment, chiefly bearing on the form of the shoe; a boot, properly made of very soft leather, such as is worn in France, may be used without aggravating the complaint. Shoes, I apprehend, are bad, as they necessitate a somewhat tight ligature over the instep; this causes intense pain immediately below it, or nearer to the toe. In time the integuments may and do become accustomed to the form of the foot, and the Bursa no longer enlarges. This, I think, is the ordinary course of events, even in cases, by no means unfrequent, where the deformity has proceeded to its greatest extent. When the deformity is natural to the person, the Bursæ do not naturally enlarge, and therefore give little or no trouble.

ON THE EPIDEMIC OPHTHALMIA

WHICH HAS PREVAILED IN THE WORKHOUSES AND SCHOOLS OF THE TIPPERARY AND ATHLONE UNIONS.

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Surgeon to St. Mark's Ophthalmic Hospital, Dublin; and Assistant Commissioner for taking the Census of Ireland in 1851, etc.

Some notice of my reports to the Poor-Law Commissioners upon the Epidemic Ophthalmia which has prevailed for some time in a few of the Irish workhouses having already appeared in the newspapers, and a few detached fragments having been surreptitiously obtained and erroneously printed for the purpose of review, I am induced to write the following observations, and to give a corrected edition of my *Medical Report* to the profession. I have but few remarks to make with respect to the observations appended to the fragments which have been published elsewhere. They are these:—I was applied to, in the beginning of December 1849, to visit and report on the Ophthalmia which then raged in the Athlone Union. I did not do so, because I did not consider the sum offered a sufficient remuneration for my professional services. Upon inquiry, I have been informed that, in accordance with my desire, a copy of my letter to the Medical Officers of the Tipperary Union was forwarded by the Commissioners to the Medical Attendant of the Athlone Workhouse, which I visited a few days after I had been in Tipperary, and where the same form of disease prevailed; and that, in other instances, it was applied for by the medical attendants themselves.

With respect to any previous reports which may have been made to the Commissioners upon the Ophthalmia, I have nothing whatever to do. If the guardians of any particular union do not choose to adopt, or the Poor-Law officials to enforce the recommendations and suggestions contained in a report, no medical man should take offence thereat, any more than he would with a patient in private practice, who sought his advice, received his prescription, and paid the usual fee, but either from perverseness, indolence, or want of faith in the proposed remedies, or in the mode of recommending them, gave no further attention to the matter.

It was not my original desire or intention to write upon this Ophthalmia, but to leave to the Poor-Law authorities, to whom they belong, to publish my Reports or not, as they thought fit, in their own proceedings: but the use lately made of my letter to my medical brethren (not of the Athlone, but of the Tipperary Union, on which alone I was called on to report), has compelled me to adopt the present course. I cannot, however, but feel complimented by finding any one generous and philanthropic enough to print and publish at their expense any portion of my writings, no matter how obtained; and I only regret, that such publication was not through a medium where it might have had a more extensive circulation. How far that letter is in accordance with the established rules of consultation communications, and professional etiquette, even where private patients are concerned: and how far the statements and recommendations contained in it are based on modern observation, and the scientific management of the disease under consi-

deration by the most enlightened ophthalmic surgeons of the present day, the medical profession are the best and only judges. It is gratifying to me to be able to state, that the medical officers of the Tipperary Union not only willingly adopted all my suggestions, but have, in a written communication, expressed their satisfaction at the course which I pursued. The notes now appended to my Medical Report are the only additions made to it since it was sent to the Poor-Law office. Neither has it in anywise been altered or amended, except so far as the usual corrections of the press required.

The lamentable consequences of the Irish epidemic do not seem to be the result of any defect in the Poor-Law, any more than the ravages committed by the Egyptian Ophthalmia among the soldiers of the British Army in 1803 arose from the inadequate resources of the Minister of War, the defective regulations of the Horse-Guards, or the ignorance of and insufficient treatment adopted by the medical officers. In both Tipperary and Athlone, the local guardians were superseded, and vice-guardians appointed; but whichever they are, the guardians of the Irish poor, paid or unpaid, should learn that it is neither justice to those entrusted to their care, nor economy to the rate-payers, not to provide suitable accommodation and other necessaries for the miserable patients, affected with a disease like that on which I have been called on to report. If it were a fatal disease, the result, according to the doctrines of some, might justify the means,—at least the mortality would lessen the expenditure; but it is not so. By this disease, people are only rendered incapable of earning their livelihood, and, in some instances, of ever leaving the workhouse; and so they remain a permanent tax upon the union. It should also be generally known, that blind people are remarkably long-lived. It, therefore, behoves the guardians and local authorities of our Irish unions, calmly and gravely to calculate the probable expense of the support for life of blind persons under twelve years of age, before they allow them to be crammed by hundreds into an unhealthy store or a damp sunken malthouse. To some very philanthropic persons, the doctrine may appear revolting and uncharitable; but it does, nevertheless, appear to me inconsistent to decorate the dead body of a pauper in the paraphernalia of shroud and coffin, merely in compliance with popular usage, while the living pauper is unfurnished with the means of retaining that health and those senses, without which there can be no hope of his ever regaining independence.

Many a good soldier, not slain in battle, has been, and is still, carried to his "rest" with "his martial cloak around him", without exciting the indignation of his comrades! Some outcry may perhaps be made by well-meaning, but uninformed persons, on account of the number of people who have lately become blind in the Irish workhouses. Before, however, such persons come into the field, they should require from the Horse-Guards an accurate statistical return of the number of soldiers who, after a considerable sum of public money has been expended on their training, and, as frequently happens, their transport to the Colonies, are annually invalided, and sent home either totally blind and so entitled to a pension for life, or partially deprived of vision and furnished with a pension for a limited period; and, be it remembered, the blindness under which they labour has arisen from the very same disease as that which has spread through the paupers in some of the Irish workhouses,

It must be borne in mind, that the observations contained in this paper are of a special, not a general nature; applicable to a peculiar affection appearing under circumstances, and among a class of people, such as neither this nor any other so-called civilized country ever presented before. Did not the late "famine fever," as it was termed, and the dysentery present such peculiarities as never had been observed in any of our previous epidemics? I was called on to report, not on Epidemic Ophthalmia merely, but on the exact condition and the best method of arresting the disease under which the paupers in certain districts laboured. To occupy any portion of this paper with pages of extracts from the writings of Vetch, Saunders, Mackenzie, Lawrence, and others, whose works are accessible to the profession, or to give a *réchauffé* of opinions and descriptions promulgated a quarter of a century ago, would partake more of system-making and book-learning than observation. I shall therefore confine myself as much as possible to facts of which I have been myself cognizant, or of which I have received accounts from credible authorities.

OPHTHALMIA IN THE TIPPERARY UNION.

In compliance with the request of the Poor-Law Commissioners, I visited the Union Schools, the Auxiliary Workhouse, and the Ophthalmic Hospital at Tipperary, upon the 12th of last August, and those at Athlone on the 23rd of the same month. From the evidence which I received, and from my own observations in the neighbourhood of the town of Tipperary, it would appear that an Epidemic Ophthalmia had for a considerable time prevailed among the lower orders in the adjoining country parts. The injurious effects of this disease, in the form of complete loss of one eye, staphylomata, leucomata, opacities of the cornea of various shades, and chronic Ophthalmia, etc., were manifest in a great number of the people I encountered; particularly in those emaciated and broken down in health, whom I saw in the town of Tipperary. Indeed I was strongly reminded during the day I spent in Tipperary, of scenes I witnessed many years ago in the bazaars of Egypt.

From the account given me by the physicians of the Union, it appears that the disease first commenced among the pauper children of the girls' school in the town of Tipperary, in the spring of 1849, and that it went on progressing until October in that year, when it assumed a more violent and decided character, so as to require their being removed for treatment to a separate house, the ordinary hospital of the parent workhouse being so much overcrowded as not to permit of their reception. What number of persons labouring under Ophthalmia were treated in the wards of the workhouse hospital between spring and autumn in the year 1849, I have had no means of ascertaining. A separate hospital becoming necessary for the reception of Ophthalmic patients, the guardians hired an unoccupied house with an adjoining store, in the town, for that purpose. At the time of my visit, it had been given up upon the recommendation of the medical men and the inspector, and the children had been removed to a much more healthy locality; but I nevertheless inspected it and reported upon it to the Commissioners, in the hope that some means will hereafter be taken by the Poor-Law authorities to prevent the guardians and local officers,

many of whom are quite unacquainted with the value of pure air, cleanliness, warmth, proper ventilation, sewerage, and other sanitary matters, in arresting the progress of disease, or contributing to the comfort of the diseased, from again falling into like errors. I am fully conscious of the difficulties which beset this subject, and of the ignorance as well as the apathy which prevail upon it among all classes of the community,—an ignorance and an indifference lamentably exhibited, even in the private dwellings of some of the middle and better orders of society,—as every medical man engaged in extensive practice is well aware. Who amongst us has not daily to enter houses where he is immediately assailed with a stench of sewers, kitchens, areas, and privies? I need not describe the scenes which meet him in his further progress to the dormitories, within the dark confined space of one of which may be found his patient, scarcely visible amidst the voluminous coverings of a feather bed. The bed itself, surrounded by thick close-drawn curtains, is generally one half the size of the room, and the air of the apartment is at times stifling in the extreme. If a Poor-Law guardian is willing to let his wife or child stew out a fever or a pneumonia under such unhealthy circumstances, we cannot expect him to provide wholesome accommodation for the pauper. But the authorities in a distant town or country village can scarcely be blamed for such matters, when we remember the condition in which the poor of Dublin were left at the fever-sheds in the beginning of the frightful epidemic of 1846, until attention was called to the subject by my lamented friend, Dr. Curran. Nor can we well exclaim against guardians and inspectors for defective ventilation in auxiliary workhouses and temporary schools, when, in some of the first-class houses of the metropolis, partial congestion is daily experienced by those who sit out a crowded dinner under the heat and glare of six or eight gas-burners placed in different parts of the room, without a single aperture in the ceiling or walls to permit any portion of the vitiated air to escape!

What is to be done, when an epidemic of an infectious character suddenly either springs up among the people, or spreads within the workhouse or its schools? Separate accommodation must be procured. Tents and sheds have been the usual means employed by Boards of Health and other authorities in such emergencies. For fever and dysentery, these may be applicable during the warm months of summer; but the localities for their erection should be properly chosen, in order to prevent such an accident as occurred at Navan during the last epidemic of fever, when, owing to their exposed situation, several of the fever-sheds were swept away one night, and some of the miserable patients left uncovered during the hours of storm and rain which followed. When an epidemic like Ophthalmia, affecting children and young persons, or when cholera, or any similar disease, which cannot be well treated in temporary sheds, breaks out, the only resource left for those who have to provide for the poor, is to hire a house, the first that can be had; and as few persons are willing, even at a high rent, to let their houses for hospitals, the consequence is, that *of necessity* old dilapidated dwellings long unoccupied, mills, corn stores, breweries, and such other buildings, with low, ill-ventilated lofts, and unprovided with sewers or privies, are really the only ones which can be procured. But still, some of the modern knowledge in sanitary matters, so much boasted of by the learned, and at

present occupying both the public mind and the attention of the legislature, should be put in force, to render these buildings as wholesome as possible under the circumstances. I therefore, in my Reports, impressed upon the Commissioners the necessity of appointing some proper officer to see that such matters are strictly attended to, both in the choice of a locality, and in the best mode of turning a store or dwelling-house into a suitable hospital. The majority of guardians in Ireland at present know nothing of such things, and even if they did, might be unwilling to encounter the necessary cost. Inspectors are uneducated in sanitary concerns; and until a course of lectures upon hygiene, somewhat similar to that required in the army, is made a part of the curriculum of education by our schools and licensing bodies, we cannot expect the medical men of the civil service to be thoroughly acquainted with the best mode of applying all the modern improvements of science to the construction of hospitals, their heating, ventilation, lighting, etc., etc. Certain it is, that it would not only be just and merciful towards the poor, but in the end, economical to the rate-payers, to procure the services of a person educated in medicine and hygiene as well as in architecture, in order to fit up these temporary hospitals. I do not consider these observations a digression from the matter in hand, and I have been induced to make them, from the impression which I received on visiting the temporary hospitals provided for ophthalmic patients at Tipperary and Athlone. Upon inquiry at both these localities, why the hospitals which I visited were chosen, the answers were, that they were the only ones which could be procured at the moment;—good; but much more could have been made of them if such a system as I have suggested had been carried out. With respect to the influence of the medical officers of the Irish workhouses generally, it must be remembered that they can only suggest, that they cannot enforce, and they are frequently the family attendants upon the guardians and other officials, as well as the rate-payers, and moreover, that their income is more or less dependent upon these persons.

In answer to a series of questions which I addressed to Dr. W. T. Reardon, the assistant-physician who has had charge of the ophthalmic cases at Tipperary, he informs me, and his answers are confirmed by my own observations, that "the class of patients attacked were debilitated starved female children; generally those recently admitted, worn out by previous want and privation of every kind, many having refused to come into the house in consequence of its crowded state, until they were exhausted to the last degree. Several were admitted this year (1850) labouring under Ophthalmia; some had already lost one eye, and the other was in a state of violent inflammation. The general health of the workhouse was very bad indeed; we had cholera, dysentery, fever, and small-pox, as well as several cases of gangrene and dropsy. There was no proper sewerage, neither was there sufficient water to cleanse the entire house or purify the privies, except what a horse brought daily from town. The vice-guardians got some sewers made; but from these being frequently opened to admit others, the smell from them was very foul. The deaths in the workhouse, since spring, have been very numerous, the mortality varying from thirty-six to fifty weekly. Few men had the Ophthalmia; I would say, not one healthy man contracted it, and very few healthy women, except the wardmaids."

From October 1849 to March 1850, there were 1525 cases, 848 males and 677 females, treated in the Jail Lane hospital of Tipperary. In consequence of the representations and remonstrances made to the Poor-Law Inspector by the physicians, to the effect that it was impossible to afford the necessary treatment to the unhappy inmates of this establishment, it was closed upon the 18th of July last, and the 302 patients whom it contained were removed to a large building in Meeting-house Lane, also in the town of Tipperary, and which was originally built for a corn store. Although the building used as an hospital in Jail Lane had been given up, and consequently did not contain patients, I conceived it to be my duty to visit the premises, in order to point out to the proper authorities how unsuited it was to the purpose intended, in the hope that, by so doing, the like occurrence might be prevented in future. I likewise entered into a minute description and admeasurement of the newly-formed Ophthalmic Hospital in Meeting-house Lane, shewing that it was improperly ventilated, heated, and lighted, that its wards were, from the very nature of the building, quite too low, and that it was most disadvantageously situated, having but a most imperfect sewerage, not possessing a proper privy, but in lieu thereof, a moveable one, by means of a soil-cart; and that the yard, the only place in which the children could take exercise, was quite too small, being but twenty-four yards long by twenty broad, surrounded by high walls, one of which was the side of the Dysentery Hospital. I pointed out such means as appeared to me absolutely necessary, to render this hospital habitable during the ensuing winter; but I also strongly urged upon the Commissioners the propriety of recommending the guardians to take a country place, the residences of some of the neighbouring gentry (so many of which are now unhappily vacant in Ireland), to which all the children should be removed as soon as possible. In an Essay such as this, it is unnecessary for me to enter into the same minutiæ with respect to those defects in the establishment, as I detailed in my Report to the Commissioners; but it is of great importance that those who are the legal guardians of the poor should understand, that where a vast number of persons, whose health and spirits have been previously broken down by want and privations of every description, are congregated together, attention to cleanliness, diet, clothing, lodging, warmth and ventilation, the means of taking exercise, and some provision for amusement or occupation, is of as much, if not of greater importance than any merely medical treatment that could be adopted. Such treatment, after all, must be based upon some general principle, and cannot, certainly, with the small staff of attendants allowed by the guardians, enter minutely into the circumstances of each individual case. The yard of the hospital, although clean and well gravelled, was totally insufficient for the children to take proper exercise in: I therefore recommended that such of the children as were convalescent should be sent out into the fields daily to play, and that gymnastics and other means of amusement should be provided, until proper accommodation were procured for them in the country.

There had been 241 new cases admitted since the hospital was opened, making in all 2068 cases of Ophthalmia in the Tipperary Union, between the 29th October 1849, and the day of my inspection,—the 12th of August 1850. I found 340 patients, 170 boys and 156 girls, aged from five to fourteen years upon an average, and 14 adults, in hospital. My first

business, after having inspected the premises, was to procure a registry, by means of one or two intelligent clerks, of the name, age, and sex, of every inmate, in order that I might attach such observations to each entry, as would enable me subsequently to draw up a statistical report upon the condition of the disease in the workhouse generally, and on the present effects as well as probable results of the Ophthalmia in each individual case. Without such documentary evidence, I believe it would be quite impossible to make anything approaching to an accurate statement, as to the result of an epidemic of this nature in three hundred and forty cases. Moreover, vague rumours spread with respect to the number of persons who become blind in such and such unions; and, as even medical men will differ on such subjects, and consequent discrepancies appear in reports, I would impress upon persons similarly engaged, the propriety of adopting the means which I have described for registering the cases. And as an unjust outcry of this nature might be raised against the permanent medical attendants, I thought it right that the commissioners and guardians should distinctly understand that the meaning to be attached to being "totally blind" was,—that both eyes had either become wasted and collapsed, or so much disorganized as to render all hope of vision irredeemable. But there are now many persons in the workhouses, with closed pupils, extensive leucomata of the corneæ, etc., the results of the Ophthalmia, at present depriving them of vision, who may hereafter, by treatment or the effects of nature, recover a fair amount of sight. Thus, in those whom one practitioner considers at the moment "blind," another may see a fair hope of recovery by operation or otherwise, and each will, consequently, place such persons in a different category. The admissions into the hospital from the 30th of March to the 20th of August, varied from 17 to 70 weekly, the disease appearing to increase with the warm weather. Statistical statements such as this, where I myself could not have been aware of the facts, were kindly furnished me by the assistant-physician who has had charge of the Ophthalmic Hospital.

In company with the medical attendants, Dr. Evans and Dr. W. T. Reardon, I then proceeded to examine the cases individually, and to consult with these gentlemen as to the treatment to be pursued, and the best mode of arresting the further progress of the epidemic; and with their *sanction* and *concurrence* I addressed to them the letter which will be found appended to this communication, and of which such unwarrantable use has already been made for private purposes. If the Poor-Law authorities, having been officially informed that Ophthalmia is spreading among the inmates of a certain workhouse or its schools, forward a copy of that letter to the medical attendant thereof, it remains for him to judge how far the disease, which I have described, is the same in those persons under his care, and to exercise his judgment with respect to his adopting the suggestions conveyed, at their desire, to my medical brethren in Tipperary.

Among the 340 patients, each of whom was individually inspected, were to be found cases of Ophthalmia or its results in all stages, from those recently affected either with simple conjunctivitis, muco-purulent Ophthalmia, or the more violent and purulent form of the disease, to those presenting collapsed globes, or staphyloma, either of the cornea and iris, or of the entire eye; but the vast majority laboured under chronic

Ophthalmia with granular lids, and a great many presented ulcers of the cornea, some of which had just penetrated, thus allowing a small portion of the iris to protrude. The granulations upon the conjunctival surface of the upper lid were the largest I ever witnessed, many of them exceeding in magnitude the size of a split pea, and some resembled the protuberance which forms upon the end of the divided muscle after the operation for strabismus; or were like the little fungus nail-headed excrescence, which grows from the conjunctiva of the lid in cases of neglected tarsal tumour, attached by a peduncle, and capable of being removed with facility by means of a curved scissars. In some cases, several of these existed along with the general villous or granular condition of the conjunctiva; they were principally congregated above the external canthus; and to such an extent had they grown, in some instances, as to produce a manifest protrusion of the lid, like that seen in ordinary tarsal tumour. Without their removal, it could not be expected that any permanent improvement could take place. A great number of such cases were treated at the time of my inspection, and such remedies were also employed as I have pointed out in my communication to the physicians, and which are therefore unnecessary to be specified here.

The disease which I witnessed in Tipperary, I believe to be a modified form of that denominated Egyptian Ophthalmia; which I have seen, upon a large scale, at Cairo, and in other parts of the Levant; and which committed such ravages in the British army at the time of, and subsequent to, its occupation of Egypt in 1803. It still exists among our troops; and a number of soldiers, both at home and in the colonies, annually lose their sight from it. It has also lingered in particular regiments for years, notwithstanding every effort made to eradicate it, and such regiments having frequently changed climates. In gonorrhœal Ophthalmia, we see it in its worst form in Europe. It used formerly to spread in public schools, particularly Charter-houses; and it has several times appeared in the country parts of Ireland, and extended among the people not then subject to any particular privation, and apparently in previous good health. So long ago as 1701, an epidemic of this nature broke out near Castletowndelvin, in the county Westmeath, by which vast numbers lost their eye-sight.[1]

This Ophthalmia is manifestly contagious, as much so as fever, dysentery, cholera, or any other established contagious or infectious disease,

[1] I became aware of this fact in searching through the papers and manuscripts of Sir Thomas Molyneux, whose Memoirs I published in the *Dublin University Magazine* for 1841-2. "From the effect produced, and the numbers who were attacked together, with the time of year at which its attack was most violent, we have little doubt on our minds that it was some virulent inflammatory epidemic, some form of Ophthalmia, and not improbably that known under the name of Egyptian. The paper to which we refer is a list of 'Queries proposed by Dr. T. Molyneux, to John Hill, curate of Castletowndelvin, in the county of Westmeath, concerning the extraordinary distemper that took away the sight of many in that parish.' The answers to this set of questions form a most interesting statistical document, as the name of each person is given, their age, sex, and the exact effect on the sight, whether total loss of vision of one or both eyes, and the whole number who were affected, etc."—*Dublin University Magazine* for December 1841, vol. xviii, p. 753. I have introduced this extract, because I have not access to the original document at present; and, as it is among the family papers, some time might elapse before I could refer to it.

arising from some peculiar state of the atmosphere acting on those who happen at the time to be good recipients for its seeds. Or it may be propagated by direct contact of the matter or discharge from one person to another; and in this mode it is supposed that the nurses and ward-maids of the Poor-Law establishments contracted it. An impaired state of the constitution; broken down health and spirits; sudden alteration in diet; crowding together, particularly at night-time, in large masses; and the want of pure air and proper exercise, have, I think, materially conduced to spread the epidemic in the Tipperary Union. At the same time it must be remarked, that very many apparently healthy children have contracted the disease, and that, in several instances, it was brought into the workhouse by persons from the neighbouring country parts, who at the moment laboured under the affection. When once this disease takes root in a school, barrack, jail, or workhouse, it is always difficult to eradicate it; and, therefore, it behoved me to make known to the guardians, and the Poor-Law authorities, that, under the most favourable circumstances, and among persons previously healthy, even in the better ranks of life, it requires a great length of time, and the most watchful care, to get rid of its effects. Relapses are always of frequent occurrence in Ophthalmia; and, perhaps, from some cause arising out of the peculiar circumstances of the recent calamitous condition of this country, relapses were one of the most marked characteristics of the late epidemic of fever. If the British soldier, well fed, well clothed, accustomed to cleanliness, under strict discipline, previously in rude health, and supplied, not only with prompt medical assistance, but all the comforts and appliances of a military hospital, suffers for months from protracted Ophthalmia, and occasionally loses his eye-sight, how little need we wonder at the ravages committed by it among the miserable Irish peasant children.

The effects of the Ophthalmia may be gleaned from my letter to the Tipperary physicians; but upon the peculiar condition of the conjunctiva, technically denominated "granular lid", I may remark, that it is one of the most frequent sources of blindness among the lower orders in this kingdom, and is one of the most intractable diseases we have to treat. Whether it arises from the humidity of the climate, or the dirty habits and impoverished condition of the poor, it is not easy to determine; but I think more instances of it are to be found in Ireland than in any other country in Europe. It is also one of the causes of entropion, an affection of which there are more cases in Ireland, in proportion to its population, than can, I think, be found elsewhere.[1]

Of the 340 cases which I examined in the Ophthalmic Hospital, at Tipperary, I find, by referring to my notes, made upon the 12th of August, that sixteen persons, ten males, and six females, had irrecoverably lost both eyes, and that in two more they were on the point of being lost; thirty-two persons, twenty-three males, and nine females, had each lost one eye. In thirty-three cases, sixteen males, and seventeen females, one eye had been blemished (generally from dense leucoma, or cicatrix of the cornea, with synechia anterior), so as to impair, but

[1] Out of 512 operations performed at St. Mark's Ophthalmic Hospital during the last three years, 62 were for entropion and trichiasis.

not altogether destroy, vision; and in six cases, three males, and three females, both eyes were in a similar condition;—eighty-seven in all of those submitted to my inspection, where one, or both eyes, had suffered to a greater or less extent. I saw, however, some other cases, in an advanced stage of the disease, where mischief must inevitably have ensued since. Whether these eighty-seven are the entire number of persons, out of the 2068 treated, in whom complete, or partial loss of vision has occurred, I have had no means of judging, as some children had been removed by their parents during the spring; but, if they are, I do not think the number at all remarkable. We all know, that in some instances of violent inflammation of the eyes, even under the most favourable circumstances, it is not possible by art to preserve the integrity of the organ; and twenty cases of total loss of both eyes, or 1 in every 103, is, I think, rather a favourable result. Will medical statistics afford a more favourable? Do 102 cases out of every 103 of inflammation of the lungs, pneumonia or bronchitis; or of peritonitis, etc., etc., recover? Of those persons, where both eyes are, for the present, deprived of sight, but not irrecoverably lost, or disorganized, several may, in process of time, have operations performed with a fair hope of obtaining a moderately useful vision; but this will much depend on the improvement of their general health, and their being removed to a more genial atmosphere.

In addition to the foregoing statistics, the materials for which were collected by myself, the assistant-physician informed me that one hundred and forty-three adults had suffered from Ophthalmia since October 1849; they were chiefly delicate females, and some of the ward-maids and attendants. I have also been informed that, previous to the 29th of October 1849, twelve people, eight males, and four females, were absolutely blind; but they did not come under my inspection.

There prevailed an opinion among the officials, both in Tipperary and at Athlone, that in several cases the Ophthalmia had been induced by malingering; the boys wishing to be freed from school, and to get a better class of food. But, upon strict inquiry, and cross-examining the persons who were said to have first propagated the report, I did not find it borne out by their answers. A few cases of it may have occurred; but it certainly did not prevail to any extent. The means by which the boys in the Athlone Union were accused of propagating the disease—washing the eyes with urine—is, I know, a popular "cure for sore eyes" among the lower order of Irish, particularly in Connaught.

The great bulk of the patients in the Ophthalmic Hospital having contracted the disease in the male and female schools of the union, I next inspected these establishments, and fully reported to the Commissioners thereon; pointing out what I considered defects, and suggesting such improvements as the nature of the buildings admitted. Both the boys' and girls' schools are situated in the uncleanly, ill-sewered, and unhealthy town of Tipperary, which in 1841 contained 7370 inhabitants, and the average proportionate mortality for ten years was, as far as the records of the last census afforded the means of approaching the truth, 1 in 30·8. These establishments had been private residences; the rooms and out-offices belonging to which, together with some additional

buildings recently erected, were converted into schools: but taken as a whole they were, in a sanitary point of view, inapplicable to the purpose. In the boys' school, in Nelson Street, there were 107 children at the time of my visit; but as many as 370 had been located in this establishment shortly before. There was a manifest deficiency of space for exercise-ground for the children. This is an error, not only in a moral but in an economical point of view; for the guardians may rest assured that if a single acre of green-field, properly supplied with a gymnasium, and other suitable means for taking active exercise, were provided in the immediate vicinity of the town (at a cost probably of two or three pounds per annum), wherein the boys and girls of the workhouse schools could play daily, the males at one time, and the females at another, it would save them a large amount of expenditure in hospitals, medicine, and medical attendance. If the children of the rich, in our upper-class schools, require this, how much more do those poor, dispirited, and emaciated creatures, congregated together in masses, and deprived, by their unhappy circumstances, of the sympathy of their natural guardians, demand some such means of healthful recreation. The school hours are from ten to three. Three times a week, when the weather permits, the children are taken out for a walk upon the roads. The food and clothing, supplied to this establishment, were both very good; but neither can supply the want of pure air and active exercise. The chief dormitories were long, thatched apartments, each sixty feet by fifteen, and the walls eight feet high; but the ridge poles of the roofs were sixteen feet from the floor. The ventilation, heretofore provided in these apartments, was, to my mind, totally inadequate; but, shortly before the date of my visit, it had been greatly improved, by means of apertures, made in the side walls, and in the roof. As many as eighty boys have usually slept in each of these apartments; but I was informed that as many as one hundred and twenty-five had slept in a single room of the dimensions I have described. Upon inquiry, the schoolmaster informed me, that "the Ophthalmia *almost invariably attacked the children during the night time, and chiefly those who slept in these very apartments*". In the front house in Nelson Street, which was originally a private dwelling, and in which the apartments were consequently smaller, and much better constructed, with respect to warmth and ventilation, than those I have just described, I was informed that, "there had been but few cases of Ophthalmia". From the 15th of May to the 15th of August, one hundred and ten boys were seized with the epidemic in this school, and removed to the Ophthalmic Hospital.

The means provided for the boys to wash themselves were, it appeared to me, quite inadequate, not merely for cleanliness, but for the maintenance of health; but, as far as I have had an opportunity of judging, the appliances for ablution in the Irish workhouses generally are defective. I need scarcely wonder at the guardians and inspectors permitting the peasant boys in the Irish Auxiliary Workhouses to wash at a pump or with a bucket in the open air in all weathers, when I remember what was the condition of things not many years ago, at one of the largest schools for the gentry in this country—one too on "Royal Foundation". There were no means for washing provided in the large dwelling-house wherein the boys slept; but half-dressed, they scampered every morn-

ing, winter and summer, across an open court or play ground, to an out office, which had recently been a stable, and the floor of which was still paved. There, from fifty to sixty young gentlemen rushed at a large trough, like a manger, in which there were eight or ten basins, and struggled for a wash, and afterwards for the first, or at least a moderately dry wipe with about as many towels. In the Athlone Auxiliary Workhouse, matters were in a still worse condition in this respect, 354 girls and 38 little boys being submitted to the process of ablution, or more properly speaking, of *wetting*, upon an exposed and elevated part of the yard, each morning, on their way from the breakfast-room to the school-room. Every medical practitioner, every mother, every old woman, knows full well what the effects of such sudden chills are in producing inflammations. The children in our workhouse schools are, I believe, very well taught the national system of education, and it is highly gratifying to witness the order, discipline, and regularity which prevails there; but if, besides the marching and counter-marching which they are drilled into (all most necessary I admit), habits of cleanliness and comfort in the matter of ablution were also instilled into these children, would it not forward the process of civilisation in Ireland?

The girls' schools at Bank Place, also in the town of Tipperary, and then the chief source of the epidemic, I inspected and reported on; but in the previous statement and observations, will be found the substance of my report, so far as concerns the objects of this communication, or as the medical profession need be acquainted with. At Grenane, about a mile from the town, there is another girls' school, containing, at the time of my visit, 331 girls, clean, healthy, and in good spirits. There was a plentiful supply of water, the night-soil cart was removed daily, the dormitories, school-rooms, and the entire establishment, were in the highest order. Originally, when the disease first appeared, many cases of Ophthalmia were sent to hospital from this school, but latterly, it had almost disappeared there. The mistress stated, that the disease chiefly attacked the recently admitted children, but that, in several instances, the new comers presented symptoms of the affection on their admission.

The following is the letter which I addressed to the medical attendants of the Tipperary Workhouse, upon the 16th of August.

"Gentlemen,—Pending the presentation of my Report to the Poor-Law Commissioners, respecting the cases of Ophthalmia which I examined upon Monday last, the 12th instant, in the Auxiliary Workhouses of Tipperary, I beg leave to put you in possession of my views on the treatment which I think it would now be most advisable to adopt.

"Upon the first seizure, if the previous general health of the patient is such as might warrant it, I would strongly recommend slight local depletion, by means of a leech or two applied over the edge of the malar bone, immediately beneath the external angle of the eye, and repeated next day, if the strength of the patient permit it, or if the inflammatory action continue unabated. This refers to young children, the most frequent subjects of the disease. The number of leeches must be regulated by the age and strength of the patient. In adults, cupping the temple and drawing therefrom three or four ounces of blood, will, I think, be

found beneficial in mitigating the severity of the original symptoms. Where there is much swelling of the lids, cold applications are generally found most grateful. I highly approve of your judicious use of the nitrate of silver; but I would suggest the propriety of keeping a solution of that medicine in a separate vessel in each ward, and having it so managed as to exclude as much light as possible; for the dark precipitate thrown down by decomposition, gives, when applied to the eye, unnecessary pain, and it is far from beneficial. I see no objection to your employing a solution of this medicine as strong as six or eight grains to the ounce, in the very early stage, when the conjunctivæ of the lids becomes villous and pulpy, and pours out in great quantity a thin mucopurulent discharge, and when that covering the globe is raised up into a serous chemosis. But as soon as ever the symptoms of intense inflammation subside, I would lessen the strength to about three grains, or even one grain to the ounce. In cases, however, where you think it advisable to employ the weak solution, it ought, I conceive, to be used more frequently, say three times in the twenty-four hours. The nurses should be taught how to apply this remedy.[1]

"With the exception of some mild aperient, given at the commencement of the attack, in those cases where the tongue is white, or loaded, I do not think that much benefit is to be derived from purging the class of patients you have to deal with; neither do I see much good likely to accrue from lowering them by means of tartar emetic, the patients which will bear such being evidently the exceptions. If a warm bath can be easily obtained, I think good will ensue from its use; and, in the treatment of the subsequent chronic stage, I am sure you will find it very desirable; but it must be properly managed to be effectual.

"As soon as local depletion has been had recourse to, the bowels freed, the bath used, and the solution of nitrate of silver dropped into the eye, I should strongly advise you to administer cinchona bark, and give it liberally, particularly during the subacute stage.[2] The decoction, with a little of the syrup, will, I think, be the most easily obtained preparation, and the most applicable to a large institution.

"As far as the patients are willing to take it, I would recommend

[1] Wherever in this Report recommendations are made, or suggestions offered, upon subjects of apparently trivial import, it is because some good reason for my doing so presented itself at the moment. It must be remembered, that the nurses and ward-maids of an Auxiliary Workhouse Hospital are themselves pauper inmates, generally very ignorant, and totally unacquainted with those matters familiar to the usual nurses of general hospitals.

[2] It has been asserted, with what degree of propriety the profession are to judge; that as inflammation of the conjunctiva, commonly called purulent Ophthalmia, in its simple and uncomplicated form, proceeds through its different stages to perfect recovery, unaided by any medical interference, we should refrain resolutely from any officious meddling with the disease, etc. How far this line of practice is applicable to inflammations in other organs in their mild uncomplicated form,—simple inflammation of the mucous membrane of the lungs, throat, bowels, or the genito-urinary organs, for instance,—those who are extensively engaged in practice are alone capable of forming an opinion. Every one who visits the continental hospitals has an opportunity of judging of the positive results of the *expectant treatment* in inflammatory diseases. Not long since, the profession witnessed the decay of a periodical wherein such doctrines were broached; and their promulgation now only proves that some persons have outlived all faith either in medicine or themselves.

plenty of nutritious food, good wholesome bread and milk, or stirabout and milk, as well as some broth containing fresh vegetables, during the day. In the treatment of these cases now in hospital, as well as in the regulation of the dietery of the schools where the disease has been acquired, I would suggest to you the propriety of varying the description of food from time to time. Properly cooked potatoes, instead of the usual meal of brown bread, would, I am sure, be considered a luxury, and tend to keep the children in good health. Although the patients in the Ophthalmic Hospital may, from its sweetness, prefer tea to milk, I would not recommend you to accede to their wishes generally, but I think the use of cocoa, made of a proper strength, and given with an equal proportion of warm milk, and some sugar, would be both palateable and nutritious.

"From what I saw of the disease, and from the account which you have given me, it is manifest that it is, in the first instance, amenable to treatment; few cases having occurred in which the cornea sloughed, or the eye burst, through the violence of the primary attack. The great majority of cases in which permanent or irreparable mischief has occurred, seem to be those in which the cornea ulcerated, and the iris protruded, subsequently to the original attack, producing either staphyloma, or extensive leucoma, with adhesion of the iris to the cornea. The treatment of such ulceration will, no doubt, greatly depend on the appearances presented in each individual case; but, as such affections are nearly always induced by some constitutional derangement, such other means of strengthening the system as circumstances will permit, must also be employed. Where the patient is much broken down, and the disease is in a chronic stage, I beg to suggest the plentiful use of cod-liver oil, of which medicine a large supply should be at once procured, and a table-spoonful given to each child two or three times a day. I saw, I am sure, fifty cases, among those under your care, which would be greatly benefited by the use of this remedy. It is most applicable to those cases in which there is much emaciation, paleness, a cold clammy skin, and large flabby granulations, and sometimes transparent ulcers of the cornea.

"As the great tendency of this disease is to cause exuberant growth of the conjunctiva, presenting various kinds of granulations, which form the sequelæ of the affection, I would advise you in every instance, as soon as the swelling of the upper lid has subsided, and the more urgent symptoms have passed away, to evert the lid in order to examine the state of its conjunctival lining, and to apply the solution of nitrate of silver directly to that part, and then, by keeping the lid thus retained for a few seconds, until the caustic has acted upon the swollen villous surface of the membrane, granulations may be prevented from forming.[1]

[1] To evert the upper eyelids, in order carefully to examine the diseased conjunctiva, and to apply suitable remedies, in some hundred cases once a day, or even every second day, in addition to the ordinary attendance necessary upon a large workhouse, requires an amount of time which few medical men could give, or the Board of Guardians would be willing to pay for. Still it was my duty to point out what I conceived to be necessary; but, at the same time, I recommended the Poor-law Commissioners to advise the guardians to furnish additional medical attendance.

" With respect to the local treatment of the ulcers,—several of which were transparent, as if a piece had been chipped out of the cornea,—I would recommend you to touch them with a solution of nitrate of silver, of the strength of about four grains to the ounce, applied with a fine camel-hair pencil. These ulcers seem to me to penetrate the cornea from want of power, in the neighbouring parts and the constitution generally, to repair the mischief, few, if any of them, presenting the usual vascular connexion with the adjoining conjunctiva and sclerotic, which is commonly set up to restore the breach. I saw several instances in which the cornea had just been ruptured, and a small portion of the iris protruded. These cases, if allowed to proceed unchecked, will inevitably go on from bad to worse. The aperture in the cornea enlarges, and a considerable portion of the iris protrudes, and the final result is either partial or complete staphyloma, or an extensive leucoma, the whole or a large portion of the pupil becoming attached to the cicatrix. In such cases, I would recommend that, as soon as you perceive that the ulcer has penetrated, you should touch the knuckle of protruding iris with a very fine brush, wet with a weak solution of nitrate of silver, and immediately afterwards drop into the eye a solution of atropine, of the strength of two grains to one drachm of distilled water.[1] The eyelids should then be fastened down with narrow strips of adhesive plaster, and a piece of fine lint plentifully smeared with a moistened extract of belladonna should be applied over the eye, and retained in this position by a light bandage. From the crowds at present in your hospital, and the liability of cases so circumstanced meeting with any accident, I would recommend to have them confined to bed. The eye should not be opened for the next four days ; but, as the lint becomes soiled and stiff with the discharge, it may be changed as often as necessary, and fresh belladonna applied round the orbit.

" In cases where ectropeon of the upper lid has taken place during the violence of the original inflammation, great care should be taken to restore the lid to its natural position, as it sometimes remains in a most distressing condition for weeks, and even months, of which, at present, you have some examples in the hospital.

" The foregoing observations refer to the more active forms of the

[1] The treatment recommended above I published in my Ophthalmic Report for 1848 (see *Dublin Quarterly Journal,* vol. v, p. 489). Since then, I have had many opportunities of testing its value ; and the pupils in attendance at the Ophthalmic Hospital have frequently witnessed its efficiency during the last few months. To state that belladonna or its alkaloid will not cause a knuckle of iris protruding through a recently opened ulcer or rent in the cornea to retract, and the pupil to expand, exhibits a want of practical knowledge of ophthalmic surgery. It is to be regretted, I think, that atropine, one of the most powerful salts, and one of the most efficacious remedies with which we are now acquainted,—far more cleanly and much more certain than belladonna,—has been omitted in the recently published Dublin Pharmacopœia. Since I first brought the use of this remedy under the special notice of the profession in this country, I have found that, in some cases, a single drop of a solution of the strength of two grains to a drachm, consequently about the thirtieth part of a grain of atropine, will, if dropped upon the conjunctiva of the lower lid, be perceived, by its bitter taste in the mouth, in a quarter or half-an-hour after its application. Where it has been necessary to use this remedy for some length of time, as in cases of contracted pupil, or central cataract, etc., an unpleasant dryness of the fauces is experienced, in addition to the usual bitter taste. Isinglass plaster, made on firm sarcenet, is preferable to the common sticking-plaster for fastening down the eyelids.

disease. I have now to give you my opinion of the chronic cases, which form the great majority of those submitted to my inspection. In the observations which it is my duty to make, and the recommendations which I suggest for the removal of those errors which it appears to me have been committed, and still exist in the general management of your ophthalmic hospital, I beg to state that I am well aware that it is not within your power to rectify them. Their removal I will strongly impress on the Commissioners, but, at the same time, it is proper you should always bear them in your recollection. The wards of the hospital are much too low, and far too many patients are crowded into them. The ventilation is both irregular and inadequate. The clothing of a great number of the children is insufficient. During the approaching cold weather, some means for heating the wards must be procured, and the unglazed windows must, in inclement weather, be properly secured. Cleanliness is not sufficiently attended to; three sponges are not enough for a ward containing nearly one hundred patients; there should be at least a dozen sponges, and the elder children should be shown how to use them themselves, and compelled to do so several times a day.[1] For the recent cases, where the discharge is believed to be infectious, I would recommended the use of small portions of tow instead of sponges, as a fresh supply of the former could be had daily at a very small expense. I do not think three night buckets sufficient for the number of patients in each ward; there ought to be at least five or six. The removal of excrementitious matter, and the cleanliness of the privy, has not been sufficiently attended to; you should insist on having the ordure cart removed daily. At the time of my inspection, the bedding, particularly the sheets, were not so clean, and consequently not so healthy, as you are aware they ought to be.

"I will strongly urge upon the Commissioners the necessity of immediately procuring some country place to which the ophthalmic patients may be removed, and where they will have a constant supply of fresh air, and be able to take open air exercise (if possible, in a green field, instead of a confined yard); without which means, neither medicine nor any effort on your part will prove available in a great number of cases.

"I would suggest the advantage, both to yourselves and the patients under your care, of making some classification of them according to the severity of their symptoms, and thus prepare the way for lessening the number of children in the establishment. I saw several patients with slightly granular lids and some mucous discharge from the eyes, but without any active inflammation of the conjunctiva of the globe or any intolerance of light, who might at once be removed, if a proper place were provided for them. As the disease is not likely to be infectious in that state, they might be sent to the parent workhouse or back to school, provided they were not confined, nor employed in learning five or six hours a day, which I find is the time the children have been occupied in the schools where the disease was originally contracted. In treating those mild forms of chronic Ophthalmia, I think you will find it bene-

[1] I think we are in the habit of allowing patients with inflammatory affections of the eyes to *slop* too much, either by steeping, or keeping on a wet rag for hours together. I am convinced that much greater benefit will be derived by fomenting the eye properly, or applying a cold lotion by means of a fold or two of fine linen for a quarter of an hour at a time, and then carefully drying the part.

ficial to use the wine of opium made without aromatics, and mixed with an equal quantity of laurel water, dropped into the eyes once a day.[1]

"Chronic Ophthalmia, kept up by a granular condition of the conjunctiva of the lids, chiefly the upper, is now what you have principally to treat. By making the following classification, and by getting a registry constructed in accordance with it, you will, I think, be able to get through your work more easily. If, moreover, each class could be kept in separate wards, it would, I think, hasten their cure. Until another house is provided, the present large wards might be divided by temporary partitions.

"Class I. All the recent cases, before they have passed into the chronic form. They should, if possible, be at the top of the house.[2]

"Class II. The totally and irrecoverably blind. These had better, I think, be separated from the rest of the patients.

"Class III. All those with ulcers of the cornea, protrusions of the iris, or staphyloma not producing blindness. In recent cases of staphyloma of the cornea projecting through the lids, and causing much irritation, I would recommend you to tap the protruding part with a flat needle every now and then, so as to lessen its bulk and remove the pressure made by the contained fluid. A light pad, made to exercise some degree of pressure on the eye, while this mode of treatment is being adopted, I have known to prove beneficial. In all cases of recent adhesion between the cornea and iris, I would recommend the continued dilatation of the pupil by means of atropine or belladonna. In cases where complete closure of the pupil exists, but in whom the operation of artificial pupil may hereafter be resorted to with some hope of success, equal care, both to improve the general health and to remove any disease existing in the eyelids, should be taken as in those already described.

"The first and third classes should be visited daily, the second but every third day.

"Class IV. With small hard granulations, generally distinct and separate. These I would recommend to be touched in the manner I pointed out to you every second day, with sulphate of copper; they need not be examined upon the intermediate days. The constitutional treatment, by means of bark or cod-liver oil, should be employed in several of these. Where there is much intolerance of light, irritation of the membrane of the external nares, and swelling of the upper lip, with other strumous manifestations, I would recommend you to use, in connexion with the bark, very minute doses of the oxymuriate of mercury, say the sixteenth to the eighth of a grain. Such cases will also be benefited by the application of a blister to the vertex; but blistering, in the generality of cases, such as those I witnessed in your ophthalmic hospital, will not, in my opinion, prove beneficial. I do not think the usual bitter infusions, or even hydriodate of potash, improve such cases, or indeed many cases of ophthalmia in young persons; but some benefit may be derived from the use of the syrup of iodide of iron, particularly in very young children.

[1] The removal of the hot spices from the wine of opium is, I find from long experience, a great improvement, when this tincture is used as a collyrium. This formula has, I am glad to find, been adopted by the compilers of our new National Pharmacopœia.

[1] The treatment of these recent cases has been described in the commencement of this letter.

"Class v. With large distinct granulations, such as those you saw me remove, and which principally congregate at the sulcus, formed by the reflection of the conjunctiva from the upper lid to the globe. These cases should be seen and their lids everted daily, and as many of the granulations as possible cut off with a curved scissars. The inner surface of the lids may occasionally be scarified slightly, and the bleeding, which will prove rather beneficial, should be encouraged by fomentation with warm water. Besides the removal of these large granulations, some local astringent should now and then be employed as the granulations disappear, such as the sulphate of copper, solution of nitrate of silver, or the acetate of lead, which latter I shall presently allude to. The constitutional treatment of such cases is even more necessary than in the foregoing class. From week to week, cases of this and the 4th and 6th classes may be removed into the 7th class, which will not require such constant attendance.

"Class vi. Are those in which the conjunctiva presents an uniform granular condition, the surface of the granulations, however, being tolerably smooth, although they may be separated by passing a probe between large packets of them. They are generally less florid than in the preceding class, and the patients are always run down in health. They will require an energetic constitutional treatment, with as much animal food as the dietary of the institution will permit. Ulceration of the cornea exists in a great number of these cases, presenting the appearance of an abrasion of its surface without any surrounding greyness. The local treatment which I think you will find most beneficial in these cases, is to unload the deeply congested purple granulations by very light scarifications, and, in a day or so afterwards, to apply finely levigated acetate of lead. For this purpose the lids should be everted, their internal surface gently dried, and the lead applied either with the top of the finger, or a camel's-hair pencil, so as to completely cover over the exposed surface. The lid should be still held firmly everted for at least a minute, during which time the lead will have dissolved, and the granulations will have changed colour very considerably, assuming the hue of an unripe mulberry. The parts should then be washed free of the application with a little clean water, either by means of a syringe, or a sponge. It will not be necessary to examine these lids again for three days. As there is an opinion that lead is deposited, and leaves a permanent stain, where there is any breach of surface in the cornea, perhaps it would be as well to confine this application to the cases where ulceration does not exist, using the solution of nitrate of silver, applied after the same manner in those where ulceration is present. After one or two applications, the lead will form a sort of enamel, of a whitish colour, and of great smoothness, over the surface of the lid. As long as this is present, it should not be interfered with, nor the remedy re-applied, except to such spots as it has not taken effect upon.[1]

[1] This mode of applying finely powdered acetate of lead to the hypertrophied villi of the palpebral mucous membrane has been highly recommended by Dr. Buys, a Belgian military surgeon and the results of his observations have been published at length in Dr. Cunier's excellent journal, the *Annales d'Oculistique*. A form of Ophthalmia, very similar to that now prevailing in the Irish workhouses, has recently spread among the troops in Belgium, and also extended through the public institutions, and among the lower orders in that country; on which several valuable reports have been published in the periodical alluded to. The action of powdered

"CLASS VII. Are those with simple uncomplicated chronic Ophthalmia.

"I would, as soon as proper accommodation and other means are supplied by the Poor Law guardians, or the Commissioners, completely separate all those who are totally and irrecoverably blind from the rest of the patients. As soon, also, as possible, some description of amusement should be procured for the children, who should be kept upon fine days as much as possible in the open air, or in a large airy day-ward in wet weather. Fortunately, there being so little intolerance of light in the great majority of the cases your hospital presents, the children will always be able to do this. I have been very much struck with the circumstance of there being so little development of scrofula in the children affected with the present epidemic Ophthalmia in Tipperary; only two or three instances of enlargement of the glands of the neck presenting in 350 patients; a fact of some interest, as tending to show the purely epidemic nature of the disease, and to distinguish it, even in the chronic form, from that generally denominated Scrofulous Ophthalmia. It also appeared to me remarkable that only one or two instances of Pannus, or vascular cornea, such as that which so frequently occurs as the consequence of Ophthalmia in the army, were to be seen in the vast number of cases under your care, and in several of which sufficient time had elapsed to permit of the formation of such appearance. This circumstance, I think, tends to show the asthenic nature of the disease you have had to treat, and the broken-down class of subjects in which it has appeared. Extreme coldness of the end of the nose is a symptom which I have long observed to be attendant on chronic Ophthalmia with granular lids, in debilitated patients, and it was to be observed very frequently among the children in your Ophthalmic Hospital.[1] To such cases the cod-liver oil is peculiarly applicable. The total absence of all other ophthalmic diseases, except the purulent Ophthalmia, and its consequences, was most remarkable; and the circumstance is fortunate, as, had the internal structures of the eye partaken in the inflammatory action, the disease would have been less under control, and the usual remedies, mercury in particular, inapplicable to the class of patients you have had to deal with. Of pustular Ophthalmia, so common at present among children and young persons, I did not see a single instance either in the hospital, or among the numerous pupils, males and females, whom I saw in the schools.

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acetate of lead is not the same as that of the liquor plumbi, even in the undiluted state. Even though it were, the mode of applying it would produce a different result. Every one engaged in Ophthalmic practice knows full well that any fluid caustic, or astringent, simply dropped into the eye with the palpebræ, generally at the moment spasmodically contracted, exercises but little influence on the inner surface of the upper lid. To prove effectual, the substance, fluid or solid, must be applied to the membrane itself.

[1] Coldness of the extremity of the nose is an attendant symptom of chronic Ophthalmia; just as much as congestion of it is characteristic of affections of the choroid or the internal structures of the eye; or swelling, redness, and an eczematous eruption, of the external nares, the septum, and the upper lip, is a constant attendant on certain forms of scrofulous Ophthalmia. To deny such, exhibits either defective vision, or undeveloped powers of observation.

In several cases at Tipperary, enlargement of the pre-auricular gland—*Bubon. pre-Auriculaire*, first noticed by Dr. Hairion, of Louvain, as an attendant symptom in gonorrhœal Ophthalmia, was observed. But, as we already stated elsewhere, it is common to other forms of ophthalmic inflammation besides the specific.

"As the yard of the present establishment is so confined, I would strongly suggest the propriety of sending forty or fifty patients, under the superintendence of a proper care-taker, to a little distance into the country every day. Two hours of freedom in some of the neighbouring green-fields daily would be of great benefit to the poor children cooped up within the narrow limits of the hospital, and would be an eventual saving to the guardians and rate-payers in the items of medicine, medical attendance, hospitals, and the subsequent permanent support of a number of blind people. There are several patients in your hospital whose sight might be saved if they were completely removed from the establishment, and placed under the care of their friends in the country. But this is a matter on which I do not possess sufficient information to be able to suggest any decided step. If, upon the breaking up of your present establishment, and the removal of the patients to a more healthy locality, you could by any means get rid of the fleas which swarm in the beds, and literally cover the sheets with minute specks of blood, it would, I think, tend to improve the health, and minister to the comforts of the miserable patients you have to treat.

"As it will be necessary to examine each individual case of the 350 now under treatment, to evert the eyelids and apply the necessary remedies, as well as prescribe medicine, and regulate the dietary, once in three days at least, and in some cases daily, I will recommend the Commissioners to afford you additional medical assistance as soon as possible. Until, however, some more healthy locality, with sufficient ground for enabling the children to take exercise, is supplied, I do not think any general improvement will take place in those under your care."

Dublin, 16th August, 1850.

OPHTHALMIA IN THE ATHLONE UNION.

In accordance with the directions of the Poor-Law Commissioners, I proceeded to Athlone upon the 23rd of August, and, in company with the physician and the master of the workhouse, I visited the different localities where I was informed that patients labouring under Ophthalmia existed; and also carefully inspected the schools, where the disease is said to have originated. As the remarks, which I thought it my duty to make upon this disease, its apparent cause, and its treatment in the Tipperary Union, were equally applicable to the circumstances of the Athlone Workhouse, I did not consider it necessary to extend my report upon the latter to the same length as the former, but contented myself with pointing out what I considered the most striking defects in each section of the auxiliary workhouses; and I also "suggested to the Commissioners the expediency of furnishing copies to the officials at Athlone, both of my letter to the medical attendants of the Tipperary Union, and also of my general report" thereon. I pointed out, in as strong terms as language at the moment supplied me with, what I considered to be manifest defects in the warmth, ventilation, cleanliness, mode of washing, and the general accommodation of the several establishments through which I was conducted. It appears, from the public prints, that the Board of Guardians at Athlone have been put in possession of my opinions and suggestions; to what extent they have availed themselves of these I know not, and, except for the sake of humanity and the credit of my countrymen, it concerns me not to inquire.

At the time of my visit, the disease or its effects were to be observed

in the girls' school, in a temporary hospital, in the boys' school, and in the Infirmary, and the Fever Hospital, these latter being within the precincts of the parent workhouse. The first of these establishments, denominated No. 1 Auxiliary Workhouse, had formerly been a private residence; it contained 354 females under fifteen years of age, and 38 males under five, who were in an infant school attached thereto. Upon inspection, I found that numbers of the children here laboured under the Ophthalmia in a chronic stage; some, the very young children particularly, were just as severely affected as those in the hospital at Tipperary, the same peculiar effects exhibiting themselves, in exuberant growths of the lining membrane of the lids, etc.; but ulceration was not so common. Upon these effects and the best method of treating them, I consulted with the medical attendant, Dr. O'Connell, who accompanied me in my visit. The matron of the establishment had been supplied with a bottle containing a solution of lunar caustic, and she seemed to have been well instructed in the method of applying it; but I believe it will be conceded, that, in order to arrest the progress of this disease, and to counteract its effects in a chronic stage, it is absolutely necessary that a medical inspection of a great number of the children of this or any other school, when it prevails, should be made every five or six days at least, and their eyelids everted, in order carefully to examine the state of the conjunctiva, and to employ such remedies as may be deemed advisable at the time. Those labouring under severe chronic Ophthalmia with granular lids, I recommended to be separated from the others. Several of the cases here seemed to me to require active constitutional treatment, in order to correct the tendency to relapse, and to assist in eradicating the disease from the establishment.

Generally speaking, the girls in the Athlone School appeared to be much more healthy than those either in the school at Bank Place, or the Ophthalmic Hospital of Tipperary. Moreover, very many of them were of a somewhat different race, having dark eyes and complexions, and consequently presenting fewer instances of the deleterious effects of ocular disease.

All forms of external Ophthalmia seem to affect light-haired people with blue or grey eyes and delicate skin, and particularly those with what are termed sandy complexions, more than those with dark complexions and brown or hazel eyes; and such diseases likewise produce, in the former, more violent symptoms. Of 1659 cases of external inflammation, including conjunctivitis in different forms, pustular, catarrhopustular, strumous, and purulent Ophthalmia, etc., registered at St. Mark's Hospital during the last three years, and in which the colours of the irides were accurately noted, 1155 were light-coloured, grey or blue; and 504 brown or hazel; being in the proportion of about 9 to 4. It must, however, be borne in mind, that light-coloured eyes, the blue-grey in particular, predominate in this country. The most marked difference occurred in the cases of pustular Ophthalmia, where there were 272 light, and 152 dark coloured; and in strumous Ophthalmia, generally marked by intolerance of light, etc., there were 267 light-coloured, and only 107 brown or hazel eyes.[1]

Forty-nine children in this school had, at the time I visited it,

[1] See Fourth Report of the St. Mark's Ophthalmic Hospital and Dispensary for Diseases of the Eye and Ear. Dublin: Alex. Thom. 1850.

suffered severely from the effects of the Ophthalmia, but in only two instances had both eyes been irrecoverably lost; two more had both eyes seriously injured, but in these latter, vision may in time be restored by operation; twenty had each lost one eye; twenty-three had each one eye seriously injured; and two had slight opacity of the cornea. In passing, however, through the school, I observed very many children with chronic Ophthalmia and a villous or granular state of the lids. It would appear that the disease had been, in the first instance, even more violent than in Tipperary; but, perhaps from the difference of race, the better state of the general constitution of the children, and the more healthful situation of the school, the subsequent consequences—chiefly intractable ulceration, kept up by an impoverished state of the constitution—were not to be observed in No. 1 Auxiliary Workhouse in Athlone: but then it must be observed, that some of the worst cases had been removed to the infirmary of the parent workhouse. The epidemic appeared to be on the decline, only two cases having occurred there during the three days previous to my visit. I understand that the disease broke out among the paupers in the Athlone Union, in April 1848, instances being at the same time observed in the surrounding country parts, and in the town of Athlone; and that 470 cases of it had been treated in the Workhouse during the twelve months previous to last August.

Having pointed out, in my Report to the Commissioners, the defects of the various establishments at Athlone in which the disease had sprung up, or then existed, both in the dormitories and dining-rooms, and remarked upon the general management of these institutions, it is unnecessary for the purpose intended, here to recapitulate them: but, as some notice of the following circumstance has already appeared in the newspapers, I here transcribe from my notes what occurred, in the hope that the like neglect may never again be permitted. Upon inquiry as to the mode of washing the children, I was informed that the process was then going forward. Furnished with an umbrella, for it was raining at the time, I proceeded to the spot, and found two of the adult female paupers, each with a bucket of water before her, standing upon one of the highest and most exposed portions of the yard, and which commanded an extensive view of the adjoining river Shannon, and the damp, swampy ground beyond and around it. The children, according as they breakfasted, crept along an adjoining wall for shelter on their way to the schoolroom, which was at a considerable distance; and as each child came up, one of the washerwomen laid hold of it, pulled down its dress in front and behind, and bending it over the bucket, threw some of the cold water with her hand upon the face, neck, breast, and shoulders of the little girl, and then gave her a scrub with the open hand. Sometimes the child escaped before the process was completed, and ran off with the water trickling from its hair and down its neck; in other instances, the children were dried with their own dresses. There were no towels there; and, upon inquiry, I found that but two had been supplied by the guardians for the entire establishment. The matron and the schoolmistress, who were present, and who were exceedingly intelligent, pains-taking persons, and apparently very humane, and anxious about the children, seemed quite unconscious of the deleterious effects likely to ensue from this mode of ablution and exposure of the body in the open air. I pointed out to the physician who accompanied me, the

great likelihood of such a chill producing Ophthalmia in weakly children already predisposed to it, and in an institution where it was manifestly an epidemic. The children should be washed and properly dried in some unexposed apartment, or their dormitories, immediately upon their rising in the morning, and not after breakfast.

No. 2 Auxiliary Workhouse, now used as an additional infirmary, was originally a malt-house, and is situated in a confined, damp situation, bordering the river, probably in order to facilitate the germination and fermenting process of the corn. From the construction of the building, its low vaults, narrow passages, and very scanty rooms, I conceived it to be totally incompatible with the maintenance of health in any persons confined within it. It was, moreover, in some parts exceedingly uncleanly. I suppose we must attribute to apathy and indifference,—consequent upon familiarization to scenes of misery and destitution—the circumstance that the guardians and the inhabitants of Athlone generally suffered such an establishment as this to exist. The patients in this hospital were chiefly cases of dysentery and Ophthalmia. Of the latter, there were fourteen; and of these, eleven boys, aged from 8 to 13, presenting the worst cases which I witnessed any where, miserable-looking creatures, squalid and ragged, slept on boards laid directly on a damp floor in a sort of cellar or dormitory 33 feet long, 10 broad, and 7 high, with unglazed windows facing a yard surrounded by high walls, and only 25 feet square. This inclosure was the exercise-ground for these and about twelve other boys located in the same establishment! These are defects in an institution intended for the improvement of health which, it seems to me, a medical man sent to inspect, is imperatively called on, both in justice to the inmates and to the authorities, fully to describe. Of the eleven boys in this apartment, three had lost both eyes, three had lost one eye each, and the remainder had one or both seriously injured. In such cases, medicine can be of no avail; I therefore strongly recommended that they should be removed to a more healthy locality, and that all the boys in this establishment—numbering about thirty-three—should at once be sent to some auxiliary house in the country, or as many as possible taken into the infirmary of the workhouse. In making a selection for this purpose, the curable cases alone should be removed, as it would be unfair to occupy a bed with an irrecoverably blind patient to the exclusion of one who had still an eye to lose.

I visited the boys' school at the Workhouse, and was informed that no fresh case of Ophthalmia had occurred among the children there for three weeks; several, however, had slight chronic Ophthalmia, and of seventeen whom I had subtracted from the rest as having suffered from the recent epidemic, two had lost both eyes, and seven, one each. The remainder had impaired vision in one or both; but it was stated that some of the children with blemished eyes, both here and at the girls' schools, had had Ophthalmia at their own homes, and had been received with blemished eyes. These boys did not look as healthy as the girls I have just described, and this school presented a much greater proportion of the fair complexioned. The clothing was insufficient; but the sleeping apartments of these children were clean, comfortable, airy, and in the highest order, which will, I think, account for the comparatively few cases of Ophthalmia which have occurred in this school.

In the Fever Hospital, there were several suffering from Ophthalmia in all its stages. Of twelve girls, two had irrecoverably impaired vision of the right eye; four boys had each lost one eye, and two others had extensive leucoma of one eye. Two adults had each lost both eyes. In the infirmary, there were twenty-one cases of Ophthalmia more or less severe; three of these had each lost one eye.

The epidemic seemed upon the decrease. There was but one recent case of severe purulent Ophthalmia at the time of my visit. Upon examination, the inside of the upper lid was found to be covered with an adventitious membrane of recently organized lymph, such as that which other mucous surfaces pour out in the early stage of excessive inflammation—in croup and diphtheritis particularly, and probably in dysentery also. In cases of suppuration of the eyeball, I have seen it formed over the entire surface of the chemosed conjunctiva in the space of twelve or fourteen hours, and so firm and extensive as to permit of its being taken off *en masse* with a forceps. The existence of this pseudo-membrane, particularly in the Ophthalmia of new-born infants, was pointed out some years ago by M. Chassaignac. A similar appearance has been observed in other epidemics of Ophthalmia in different parts of Europe and in Egypt, and it was very manifest in the severe Ophthalmia which recently prevailed in Belgium. I think it should be removed as soon as possible with a camel's hair pencil, and the surface then washed over with a strong solution of nitrate of silver, a practice which proves so beneficial in certain inflammations of the pharynx.

The physician agreed with me in the propriety of the treatment which I recommended, and which was nearly the same as that pointed out in my letter to the medical officers of Tipperary; viz., slight local depletion in such cases as would bear it, the use of astringents, attention to the state of the digestive organs, and then supporting the strength and improving the general health by nutritious diet, pure air, and the liberal use of tonics, particularly bark and cod-liver oil. According to my experience, a couple of leeches, applied in the neighbourhood of the affected eye in a child, is not only much more effectual in arresting the progress of the inflammation, but also much less exhausting to the patient's general strength, than a large blister placed upon the nape of the neck or between the shoulders. When blisters are applied behind the ears, or in the immediate vicinity of the affected organ, as on the side of the cheek or the temple, they cause, in young children particularly, great irritation and restlessness, and often give rise to eruptions on the face, difficult to cure. It must, however, be remarked, that where leeching is to be used in many cases, it will require a larger staff of attendants than is generally allowed for Poor-Law Hospitals. The system of purgation is too liberal in many of our public institutions. In catarrhal or muco-purulent Ophthalmia in children in this country, the tongue is, upon the first accession of the disease, generally coated with a thick, putty-coloured exudation, through which the bright red papillæ stand up prominently; and the better state of health the child has been in previously, the more marked is this symptom. Hence, the well-fed children of the middle classes more frequently present it than those of the poor. In such cases, the digestive organs demand special attention. But we frequently meet cases among the lower orders where the tongue is quite clean from the very first, nay, is

often unusually florid, and these will not be benefited by purgation. In relapses, even among the most robust children, the tongue is seldom so foul as in the original attack. Where the Ophthalmia has suddenly —as in the course of a few hours—seized a person, the tongue is seldom much loaded. In Tipperary and at Athlone, the prevailing character of the tongue in those sub-acute and chronic cases which I inspected was either pale red, or like the surface of a piece of macerated liver.

Before I conclude this report upon the Ophthalmia in Athlone, I beg leave to append the following account of a similar epidemic which prevailed in the 31st Regiment, while stationed in that garrison, for which I am indebted to my friend Dr. Massy, the Assistant-surgeon of that corps. "The regiment suffered slightly from Ophthalmia at Manchester, and also after its arrival in Dublin, where we left all our cases of Ophthalmia. We reached Athlone in July 1848, but we had also several men in the ranks with tender eyes, and these I always thought it would have been well to have separated from the rest. At head quarters we had 730 men; and two detachments, one of 90, at Roscommon, and the other, of 50, at Lanesborough. Soon after reaching Athlone, Ophthalmia became very prevalent among the troops, and we had generally forty cases in hospital at a time. All through the winter its spread was very gradual; and as an idea was entertained that its existence was attributable to the men themselves, it is possible that sufficiently energetic means were not employed to arrest its progress. At least, so I believed. The men were constantly kept at their duty, and no precautions taken for separating those slightly affected and convalescent from the others. In the following spring, about May 1849, the disease had regularly got hold of the regiment, and then I suggested the propriety of inspecting the troops daily, when all cases shewing the slightest symptoms of the disease were at once taken into hospital, and all the convalescents were placed in a detached barrack, apart from any communication, even indirectly, with the other men; and as these latter got well they were drafted to their respective companies. All the men in the regiment were ordered to wash in separate vessels, and to use their own towels only, each man having two; and the sergeants and subaltern officers were held responsible for these regulations being complied with. Even with these precautions, the disease made such progress, that it was with great difficulty we could check it, and that was not fully accomplished until we were about to leave the locality, in the spring of 1850.

"We had many formidable exciting causes to contend with, besides the extent of the existing disease. Athlone is well known as a locality where Ophthalmia constantly prevails. Nearly every regiment quartered there, for many years past, appears to have been affected with the disease. I believe the main cause of its prevalence there depends upon the great exposure of soldiers at night-time, mounting guard on those cold, bleak, unprotected positions upon the batteries and lines adjoining the bank of the River Shannon. The atmosphere is the dampest that I ever experienced, except, perhaps, in India, during the rains. The cold damp wind, coming down off the lake and the bogs at night, used to give the men Ophthalmia as if *struck* by the disease.[1] I have seen

[1] One of the men invalided from the 31st regiment told me to-day, that he went on guard perfectly well at twelve o'clock at night, and was unable to remain on his two hours, his eyes had become so much swollen and so gravelly.

four and sometimes six men come off guard into hospital, with severe conjunctivitis, who had mounted guard perfectly well. I know not if you are aware that soldiers' guard-rooms are about as small as they well can be; and that, when a sentry is relieved, he goes into the guard room, where he and his comrades lie down, in their great coats, altogether, huddled as close as possible. They shut the doors and windows, and light a large fire; and are, consequently, almost stewed. Then, when it comes again to their turn to go on sentry, they change *at once* from this great heat to a two hours' watch on the lines, exposed to the cold damp wind I have described. I am satisfied that it is this atmospheric influence, and this sudden transition, that produces Ophthalmia at Athlone, for many reasons. One will suffice. The Scotch Greys were quartered there with us, as also a battery of Artillery. These were both replaced by the 4th Light Dragoons and another battery of Artillery. Now, the men of these corps are similar to ours in every respect; they were quartered in the same barrack, and had the same rations, etc.; but they had not a single case of Ophthalmia among them; I believe because they never mounted guard as our men did. I do not believe that the disease was produced by the men themselves. Some of the best soldiers we had were attacked with it, and many of the bad ones escaped. From July 1848 to March 1850, 430 cases were admitted into hospital. Only one man went blind with both eyes. He had violent purulent Ophthalmia; and, in spite of the most active means, lost his sight in twenty-four hours. Four lost one eye each. Two of these were invalided, and two are still in the regiment; and twelve others were sent to Dublin, with chronic Ophthalmia, granular lids, opacities of cornea, etc., and were invalided in consequence. During the two years that we were quartered at Athlone, only two men upon the out-stations were attacked by the disease. They each lost an eye. I think you will allow that, out of 430 cases, for only one man to go quite blind, and four to lose one eye each, was fortunate. We were in the habit of making the men march three or four miles into the country every day, as soon as the acute symptoms had subsided, and we found no means more effectual in improving their health. We never confined them to bed, except in the inflammatory stage, and we gave them a generous diet, wine, and porter."

From this valuable communication we learn many useful facts, with respect to the exciting causes of the prevailing epidemic at Athlone, which will, I trust, be properly applied by those whom it may concern, civil and military. We likewise learn the fact, that in persons as healthy as soldiers, for whom every appliance and comfort is provided and the most judicious treatment employed, out of 432 cases, including those upon the out-stations, permanent mischief may result in seven, and twelve more be invalided; making nineteen in all, or one in every twenty-three, on the most moderate calculation.

It is no small satisfaction to me to find that the means which I recommended in Tipperary were immediately put in force, the guardians having, in a few days after my visit, procured suitable accommodation, and having had all the children labouring under Ophthalmia and its effects in the Meeting-house Lane Hospital removed to a country seat, some miles off. And in Athlone, the patients so miserably located in the Malthouse were forthwith removed to the parent Workhouse. In both localities the spread of the disease has, I understand, nearly ceased.

How far the disease has prevailed throughout the Irish Unions generally, I have no means of stating with any degree of accuracy; but I know that it has spread extensively throughout the south and west. At Limerick, in particular, I am informed by Dr. Kavanagh, it has spread extensively in the Poorhouse, and has also prevailed among the lower classes in the town, and in the neighbouring country. Upwards of 2000 cases occurred in the Workhouse and Auxiliary Workhouses of the Union since June last. It has likewise broken out in Kerry, at Tralee, and Dingle, and also at Kenmare. It has recently appeared in the Kilmallock Union, and in the Workhouse at Loughrea, as I have been informed by Dr. Lynch. Ballinasloe Union has also suffered from the epidemic. In Galway Poorhouse, Dr. Brown informs me, it broke out in June, so as to create alarm for its spread; and at the same time it appeared in the Auxiliary Workhouses of that Union, both of them situated in the country. It appeared chiefly among the boys and girls under fifteen years of age; and it was remarked that it never affected those who were labouring under dysentery. The disease was at its height in September, when 102 cases occurred. It has also prevailed slightly at Loughlinstone, near Bray.

What the exact number of persons may be, who have been totally or in part deprived of sight by this epidemic in our Irish Workhouses, I have no means of ascertaining; but I have addressed a letter to the Commissioners, enclosing a form for obtaining the desired information, which has been adopted. The returns which this circular will produce, together with the results of the Census about to be taken, will afford the true statement; and upon a subject of such importance, it is of great consequence that accurate statistical information should replace the loose assertions so frequently made, not only as regards this, but with respect to everything relating to this country.

It is quite manifest that, if the disease continues to spread, a great number of persons must, even with the greatest care and under the most judicious treatment, become blind. It cannot be expected that, in the impoverished state of this country, the friends and relations of such can receive them back into their homes; and it would scarcely be just to leave them in the hospitals and poorhouses. Some suitable asylum, where they will be properly taken care of, and educated according to their capacity, must, in process of time, be erected for their reception and maintenance. The last Poor-Law Act provides for such. At section XIV we read: "And be it enacted, that the Guardians of any Union may send any destitute poor deaf and dumb or blind child under the age of eighteen, to any Institution for the Maintenance of the Deaf and Dumb or Blind which may be approved of by the Commissioners, with the consent of the parents or guardians of such child, and may pay the expense of its maintenance there out of the Rates raised under the authority of the said first-recited Act." This, I believe, is the only country in Europe in which there is no general asylum for the destitute blind.

Dublin, December 1850.

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The Profession of Medicine does not hold, in the estimation of the public, the rank to which it is undoubtedly entitled. While medicine as a science has made rapid and gigantic steps, its professors have by no means reaped rewards proportionate to their meritorious exertions, and to their sacrifices on behalf of the community. While the sister professions of divinity and of law are upheld and defended in their rights and privileges by the strong arm of the legislature, and by codes of etiquette and of ethics self-imposed by those who constitute the legal and clerical bodies, the profession of medicine, which is inferior to no other in the extent and variety of its studies, or in the nobleness of its aims, is left to struggle in the best way it can with apathy, and sometimes with contumely from without, and with angry dissension from within. This state of things has long been recognised, and has frequently been deplored: but although innumerable remedies have been recommended to counteract or to remove the growing evils of our condition, a cure still seems far distant: for while each one who has applied himself to the task has found it easy to point out the fallacy of plans advanced by others, no one has been able to propose an effective substitute. In the present condition of the profession, it appears to us that self-reform is needed as a prelude to legislative enactments. Before the legislature can act with efficiency, so as to satisfy the expectations of individuals and to protect and benefit the public, and before the corporate bodies can so liberalize their policy as to consult the hopes and wishes of the mass of the profession, it is absolutely necessary, in our opinion, that its members should be united among themselves; that they should lay aside their petty jealousies and party struggles for pre-eminence, and apply themselves with one heart to the great preliminary work of effecting a moral reformation. While, therefore, we

fully admit the necessity of Reform in the Medical Corporations, and while we profess our wish and our determination to struggle for obtaining from the Legislature a recognition of the just claims of the many, we nevertheless most strongly recommend that the progress of reform should be from below upwards ; and we feel convinced that by harmony and union—by honourable and continuous exertion—by individual and collective attempts at internal regeneration—the progress of improvement, though tranquil, will be so irresistible, that neither the Legislature nor the Corporations will be able to refuse compliance with demands justly made, and respectfully urged. But while ignorance, quackery, and folly, still (and we speak it to our shame) disgrace our noble profession, how can we command the sympathies of the public, or induce the Legislature or the Corporations to listen to our complaints, or redress our wrongs ? We therefore conceive that the opening of a new year affords an appropriate opportunity for offering some remarks on Medical Ethics.

The sentiments which we shall profess, and the views which we shall advocate, are those which this Journal has, from the commencement of its existence, consistently maintained. We shall continue to enforce the adoption of a lofty tone of morality in our intercourse with our brethren and with the public at large ; we shall, as far as lies in our power, give honour to whom honour is due, irrespective of rank, fame, or position ; and we shall hail with joy any attempt to introduce wholesome reform, from whatever quarter it may come—

"Tros Tyriusque mihi nullo discrimine agetur".

The publications, of which we have prefixed the titles, are all devoted more or less to the consideration of the subject of Medical Ethics, or in other words, of the mutual duties and obligations which the members of the Medical Profession owe to their brethren, and to the community at large. The first work which stands on the list is a most useful and valuable essay upon this subject, written by a transatlantic physician, and edited in a very creditable and judicious manner by our countryman, Dr. E. Bentley. The Transactions of the American Medical Associations are highly interesting, as showing the praiseworthy efforts which are being made by our brethren in the New World, to harmonize the conflicting and discordant elements which constitute the Medical Profession in that quarter of the globe. From the perusal of these Transactions, it is somewhat consolatory to discover that, however much we may lament the condition of our profession in the British Empire, things are still worse in the United States. We find that complaints are made of the inefficiency of the education of medical students, of the general absence of sound preliminary instruction, and of the laxity of the examinations for degrees in medicine and surgery ; and we find complaints exactly similar to those made in our own country against the prevalence of quackery in its various forms, and denunciations of practices which, although adopted by persons within the ranks of the profession, are nevertheless inconsistent with the character of honourable men. To remedy these evils, associations have been formed in various parts of the United States ; and, in a spirit of hearty co-operation, we emphatically wish them success in their laudable endeavours.

But, instead of analysing the contents of the volumes now before us, it is our intention to offer some remarks founded upon a perusal of their pages, and which we believe to be imperatively called for by the circumstances of the present day. Although our remarks are intended for all, it is yet our object in the present article to address ourselves more particularly to the younger members of the profession. It is from the present generation of students that the practitioners of future years must arise, and it is impossible to overrate the importance of an early adoption of sound principles of thought and action.

We cannot omit to notice, in the first place, the heavy responsibility which is incurred by the medical practitioner, and the necessity which exists, that he should be a moral and religious man. But, besides these qualities, there are others hardly less requisite; he must cultivate all the gentler feelings of the human breast, must bear with patience the irritability which attends upon disease and suffering, must witness scenes at which humanity instinctively recoils, and must often inflict pain that good may ensue. Whatever branch of the profession he may intend to pursue, he must be prepared for labour and self-denial, and must waste the midnight oil in solitary study, as well as enter into the active duties of attending upon the sick. And his reward, we regret to add, will often be found only in the approval of his own conscience; for many of those to whom he must minister are the outcasts of the earth, who nevertheless claim at his hands the same attention which would be bestowed upon the most favoured of their fellow-creatures.

Having thus premised the indispensable necessity of morality and religion, together with the virtues which follow in their train, in forming the character and directing the conduct of the medical practitioner, we shall draw attention to a subject on which much has been said and written, but hitherto not so much as the occasion demands: namely, the importance of Preliminary Education. We cannot plead guilty to any exaggeration, when we declare that half the evils of the profession may be traced to a deficiency in this particular. By thrusting uneducated or ill-educated men into the ranks of the profession, the whole medical community is injured and degraded; and we may advance a step farther, and declare our conviction that the multiform shapes assumed by quackery are, in a very great measure, to be traced to the want of sound principles inculcated in youth. The gross absurdities of homœopathy and hydropathy could never have been carried into practice by men who were in the slightest degree acquainted with the principles of logic, or who had taken any trouble to endeavour to trace effects to their causes. The mere fact that persons have been cured under the treatment, is by no means conclusive evidence, for persons have recovered under erroneous treatment and in the absence of all treatment, so great is the power of the *vis medicatrix naturæ;* and even were such cures much better authenticated than they are, there would still be an utter absence of all proof of the truth of the dogmas on which these pseudo-philosophers build the foundation of their practices.

When we argue for the necessity of a sound preliminary education in the case of those who are to be educated for the medical profession, we do so on no narrow grounds; we do not assert that it is absolutely essential that prescriptions should be written in Latin, or that the future practitioner of medicine must necessarily draw his professional knowledge from the original writings of Hippocrates, Galen, or Celsus; but we maintain, that without some training of the mind in classics and mathematics, a young man is wholly unable to comprehend even the alphabet of medical science. On commencing his lectures, he is met at the threshold of his medical studies by a host of names derived from the Greek and Latin languages, which have been very generally, and we think very justly, employed in the construction of our scientific nomenclature; and the terseness, the perspicuity, and the expressiveness of those languages adapt them most admirably for the purpose. Again, in the study of chemistry, the principles of the exact sciences are indispensable; for chemistry is not a science of hypothesis and speculation, but of experiment and reasoning. And in the study of physiology, the questions proposed for consideration are still more difficult; for, in addition to the mechanical agencies which affect the condition of matter, the mysterious principle of vitality is introduced to modify or control the ordinary laws of nature.

When we contrast the condition of the medical practitioner with that of the clergyman, the comparison is greatly to the disadvantage of the former; and if the reason of this disparity be asked, it will be found, we think, in the general superiority of the preliminary education enforced upon the ministers of the Church. Were we to make use of the same line of argument as that which has been adopted in relation to our own profession, we might urge that a knowledge of the classical languages was unnecessary to a clergyman of the present day, that the learning of our ancestors had accumulated for us such a mass of translations and commentaries that an acquaintance with the originals was superfluous, and that good common sense and a fair knowledge of the mother tongue were the only accomplishments necessary for the ministers of religion; but law and custom have (and we think very properly) ordered that it should be otherwise, and the future clergyman is compelled, before he enters upon his theological courses at all, to pass through a definite prescribed course of classical, mathematical, and logical studies. No one ever argued, so far as we are aware, that in order to teach the doctrines of Christianity, it was absolutely essential to be initiated into the mysteries of heathen mythology, or to be thoroughly versed in the intricacies of Greek metres; but that these and similar investigations tend to strengthen the mind and to enlarge its faculties, is undeniable; and we accordingly find, that, in the majority of cases, those who have distinguished themselves most in their University career have been the most celebrated characters in after life. It is not argued that such studies as those we have alluded to, are essential to the clergyman, the barrister, or the physician, in the discharge of the professional duties which fall to the lot of each; but it is maintained, that the exercise of the mental faculties which attends a scholastic career is eminently conducive to that discipline of the mind, which enables a man to practise with success in whatever department his taste or his fortunes may point out.

But it may be urged, that if a high standard of preliminary education were required from all professional men, there would not be found a sufficient number of persons who would be qualified for their respective duties. This argument we have, on a former occasion, shown to be wholly fallacious; for, although a vast proportion of the clergy receive very small incomes, it is a well-known fact that there is no diminution of the number of those who repair to our Universities with a view to the Church, and who, with the scanty emolument which they have in prospect, nevertheless enter with zeal and assiduity upon the laborious and expensive curriculum enjoined by the authorities.

If, then, it be universally admitted, that a sound preliminary education is essential in the training of the clergy, and if the clergy themselves cheerfully adopt the collegiate course which is prescribed to them, it is surely equally necessary that the education of the medical practitioner should not be neglected. The latter is, or should be, on a level with the members of any other profession whatever; and there is nothing in his condition, except want of education, that can make him forfeit this his proper rank.

We have just shown, that a knowledge of the classical tongues is indispensable to a comprehension of the literature and current language of the Medical Profession; and that, without such a knowledge, lectures, discussions, and treatises on medical matters, are comparatively valueless, and almost unintelligible; and we have also insisted that an acquaintance with the exact sciences is no less necessary, to direct the mind in a definite course,—to collect and analyse the multitude of facts presented to the memory,—to arrange and methodize the stores of acquired knowledge,—to retain what is valuable, and to reject what is useless or unimportant,—to lead to the formation of just conclusions, and the rejection of false, foolish, and visionary hypotheses, such as the dreamy mysticisms of homœopathy, hydropathy, etc. But these,

after all, are mere utilitarian arguments ; and we do not advocate the pursuit of knowledge, merely by counting up how much it will eventually be worth to the possessor. No ! we argue for the intellectual improvement of our profession on much higher grounds. We see everywhere around us that education is marching on with rapid and gigantic strides,—that a thirst for knowledge is springing up among all classes of society ; and we cannot allow that the practitioners of medicine, one of the noblest, most ancient, and most useful of the arts, should be distanced in the honourable competition. We cannot endure that, while mathematicians and philosophers are subjugating the material universe to the empire of the mind,—while valleys are literally exalted, and hills made low, by human art,—while even time and space are made subservient to the control of man—we cannot endure that medicine should be deserted by philosophy, and tainted with the discreditable alloy of empiricism. We should indeed rejoice if we could believe that all empirics were (as we believe many to be) well-meaning, though weak-minded men : but we fear that in too many cases the name and titles of the profession are usurped to cover the nakedness of rampant fraud, and to assist more effectually in deluding the multitude. Against such a lamentable condition of things, we believe one of the most effectual barriers to be an improvement in the Preliminary Education of the Profession, which would undoubtedly tend to check, if not altogether to subvert, such tendencies as those to which we have just alluded. The ridiculous and baseless conclusions at which quackery jumps, could never be entertained for one moment by minds trained to accurate mathematical induction and demonstration : and the idea of deluding the public for selfish objects could surely be seldom entertained by persons, who were made acquainted from youth with the glowing pages of the Greek and Roman sages, dramatists, poets, and philosophers, who wrote not for their own age, but for all time, and whose language and whose sentiments will endure as long as a perception of the good and the beautiful is left among the nations of the earth.

But we may be asked to state our views as to the nature of the preliminary education which ought to be recommended or enforced, in the case of those who purpose to enter the Medical Profession. Now this must, of course, vary with the nature of the case ; but, as a general rule, we know of no course of instruction which is more complete and efficient than that required for the Matriculation Examination at the University of London, which takes place once a year, and is open to all students who have passed their sixteenth year. This examination, which is somewhat similar to the Previous Examination at Cambridge, comprises a fair acquaintance with the Greek and Latin languages, and the mathematics, including algebra and geometry ; to which are added the subjects of chemistry or natural philosophy, the principles of English grammar and composition, and the elements of ancient and modern history. In our opinion, the whole of the youth of our profession ought to be subjected to this, or a similar examination; for there is no part of it which does not contribute to enlarge the views and strengthen the intellect. For it should not be forgotten, that the medical practitioner is, or ought to be, essentially a gentleman, and should possess, in addition to his medical knowledge, such an amount of general information as may qualify him to mix in any society. If, therefore, circumstances should prevent him from passing the London University examination, or from graduating at one of the other universities, we consider that he should possess, *before entering the Medical Profession*, at least such an amount of classical and mathematical knowledge as may be acquired at a good school ; and without the possession of this amount of knowledge, he should not be recommended, or indeed allowed, to enter the profession at all ; for, independently of all higher considerations, we conceive that a person destitute of this amount of information is quite unable to follow with any profit a train of medical, chemical, or physiological reasoning, or, indeed, even to comprehend the technical terms used in science. He may, indeed,

learn to apply bandages and extract teeth ; he may acquire a certain degree of dexterity in putting on splints ; and he may even be capable of prescribing a blue pill and a black draught, without much compromising the safety of the community : but such are not the only necessary accomplishments of the medical practitioner, who is often called upon, not only to draw largely upon his stores of actual knowledge, but to employ the processes of subtle and refined reasoning.

We are most happy to notice, in terms of the highest commendation, the encouragement given, at one or two of our hospitals, to the prosecution of general literature and science among the alumni of our profession. We find that, at St. Thomas's and the Westminster Hospitals, scholarships are instituted for students *who are about to commence their medical career*, and who can pass a successful examination in the Greek, Latin, and French languages, and in the elements of Mathematics. We should most earnestly desire that all the hospitals, and medical schools, would follow so excellent an example; and we should rejoice if the examination were, in all cases, made compulsory, instead of optional.

It may be argued, that it is difficult, if not impossible, for the mass of medical students to reach the standard of education which we have just been recommending. We answer emphatically, that there is no difficulty at all in the matter. It may also be urged, that the system of apprenticeship is inimical to the acquisition of general preliminary knowledge. Now we maintain that a boy of average intellect and application, if placed at a good school, may, by the time he has attained the age of sixteen, acquire a sufficient amount of knowledge to meet the exigency of the case, and be enabled to pass his examinations at the age of twenty-one, even under the disadvantage (if it be one) of an apprenticeship. But we strongly recommend that a boy should after leaving school be sent for a year, at least, to some college, before entering upon his medical career. This, it is true, would delay his passing his examinations until the age of twenty-two, supposing the apprenticeship clause to be still in force. But we are quite at a loss to discover how any injury would ensue, either to the individual, or to the public, by this delay of a year ; on the contrary, we think it would be highly beneficial ; and we cannot too strongly condemn the practice of granting diplomas at the early age which is now usual. But, allowing matters to stand as they do at present, we have shewn that there is no difficulty whatever in a pupil acquiring a sufficient amount of general and medical knowledge, in the time at present allowed for the purpose.

With regard to the system of apprenticeship, we have already, on a former occasion, expressed our opinions. We neither argue for its continuance, nor press for its abolition : but, so long as the system is permitted to continue, we deem it more advisable to endeavour to increase its utility, than to denounce its abuses.

In leaving this subject, for the present, we repeat our conviction, that THE WANT OF PRELIMINARY EDUCATION among the members of the Medical Profession, is THE GIANT EVIL of our community in the present day. Without a sound basis of general information on the part of students, the efforts of lecturers, professors, and examiners, however well directed, are of little avail. We do not expect perfection under any circumstances ; nor do we suppose that, under any system whatever, the members of the Medical Profession will be exempt from the faults, the follies, and the vices of other men : but we strongly maintain that the best—nay, the only safeguard against the inroads of quackery, the prevalence of visionary theories, and dishonest methods of practice, is to be found, in the inculcation of sound religious and scientific principles in early life.

(To be continued.)

Die Geburten missgestalter, kranker, und todter Kinder. Von Dr. Anton Friedrich Hohl, ordentichem öffentlichen Professor der Medicin und Geburtshülfe an der Universität zu Halle, etc. pp. 382. Halle: 1850.

[The Births of Misshapen, Diseased, and Dead Children. By Dr. A. F. Hohl.]

Dr. Hohl has, with considerable research, collected and arranged a large amount of information concerning the various malformations, diseases, and other accidents, to which the fœtus is liable: and has endeavoured to illustrate the practical bearing of this subject, in relation to the process of parturition. He treats successively of Malformation, Intra-uterine Diseases, and Dead Children.

Malformed Children. After a carefully compiled historical introduction, the author gives the following classification of the Malformations of the Fœtus.

Class i. Monstrosity from impediment to the vegetative and formative processes:

A. Of individual parts: (*a*) Head; (*b*) Extremities.
B. Of the entire body: (*a*) Acormous; (*b*) Amorphous.

Class ii. Abnormal connexion and union.

A. Abnormal Connexion:
- *a*. Of the Fœtus with parts of the ovum.
- *b*. Of the Fœtus with accessory and supernumerary bodies (parasites).
- *c*. Of two perfectly formed independent individuals, neither preponderating over the other, by means of a band.

B. Abnormal Union:
- *a*. Of individual parts.
- *b*. Of the corresponding parts of two individuals: (*a*) Malformation, with spurious fusion of parts; (*b*) Malformation, with true fusion.

Class iii. Malformations produced by mechanical causes:

a. From narrowness of the containing cavity.
b. From twisting of the umbilical cord round some part.
c. From abnormal membranes and bands.

These subjects are treated at length under the separate heads of Diagnosis, Influence on the Process of Parturition, and Treatment. The plan upon which the work is written prevents us from attempting to give a detailed analysis: we must therefore be content with translating a few extracts as specimens.

"Acephalous Monsters. In describing this form of monstrosity, we proceed from the more to the less perfect, according as the defect extends from above downwards, and amounts even to absence of the neck and thorax. The more the imperfection of development extends downwards, the greater is the defect in the upper extremities. Acephalous monsters generally have a short round body, with œdematous swelling of the cellular tissue.

"Characters. 1. There is a tumour in the place of the head, in which bones may be felt. The projection is either a round spongy body, or a cavity formed of spongy bones, and covered with a periosteal membrane, or a round protuberance covered with skin, and furnished with holes and excrescences, representing the eyes and nose. This protuberance is a rudimentary cranium, in which the bones of the face are absent, but which possesses frontal and occipital bones. 2. There are no bones; and the rudimentary head feels like a bladder, a cartilaginous tumour, a mulberry-like swelling, a small warty projection, or a membranous lump covered with hairs. The cervical vertebræ are present. 3. The cervical vertebræ are either imperfect or wanting; in the first case, they are fused together, so that they may be mistaken for cranial bones. The head is entirely absent. 4. The dorsal part of the spine consists only

of single vertebræ: the upper limbs are wanting. (Atkinson, *Phys. and Med. Journ.*, 1804, No. 65.) 5. The lumbar vertebræ are either in proper number, or deficient, and the upper end of the body is round, or forms a blunt cone, and sometimes has a small fleshy or membranous excrescence, which may be furnished with thin, or even with thick hair, and is not unfrequently the point of insertion of the umbilical cord. 6. The malformed fœtus is formed only of the bones and muscles of the pelvis and lower extremities. The umbilical cord, in this form of monstrosity, is generally short and thin.

"SYMPTOMS DURING PREGNANCY AND LABOUR. The acephalous fœtus generally occurs in twin and other multiple births, and is rarely found alone. It occurs both in primiparæ, and in those who have borne several children. The mothers are almost always very prolific. (Busch and Moser, *Handbuch der Geburtskunde, Art. Missbildung*, s. 521.) According to J. F. Meckel, pregnancy reaches its full term, and the accompanying twin is usually mature. (*Pathol. Anat.*, ph. I.) Of twenty-two cases, collected by me, the time is given in eleven; in three, parturition took place at the full period; in one, at the sixth month; in four, at the seventh; in one, at the eighth; in one, at the ninth; and one is merely said not to have arrived at the full term. Of forty-seven cases, mentioned by Tiedemann, fourteen were born at the full period, and thirty-three were premature. The presentation is generally footling; at least such was the case in eight instances, in which the presentation was recorded. The perfect child is born first, and the other follows in from half-an-hour to twelve hours. The obstetrician has here especially to observe: 1. Whether the rudiments of the head are distinct, or entirely wanting. 2. Whether the upper limbs are deficient, or entirely absent. 3. The conical or round end of the trunk, with or without ribs, more or less distant from the umbilicus. 4. The failure of movements after the birth of the first child. 5. The presentation of the feet, which are usually malformed. 6. The usual imperfect development of the generative organs." (pp. 61-3.)

The chapter on the TREATMENT required in the various kinds of malformation is interesting. We quote the general principles which are laid down by the author.

"In every case, where there is a mechanical impediment to labour, the possibility of the presence of monstrosities must not be forgotten, especially when no impeding cause can be discovered to exist on the part of the mother. 2. If the presence of a monstrosity be recognised as the cause of impeded labour, a repeated exploration is indispensable for the choice of a suitable plan of treatment: the kind of malformation, and the relation of the parts to each other and to the maternal passages, must be ascertained as accurately as possible. The fulfilment of this indication is often the more difficult, as we have to determine not only normal, but often abnormal relations. The pelvis may be of usual size, and yet may not suffice; and a slight, even unconspicuous narrowing may be important, according as the malformation belongs to either one or the other class. On this knowledge depends the choice of the operation, and the manner of performing it. 3. With regard to the mother, the mildest and least painful treatment is to be adopted: the hand is to be preferred to instruments; and due regard must be had to the safety of the child. 4. If the child be alive, its chance of living, according to the kind of monstrosity, must also be borne in mind. The duration of viability must be considered; the child may live only a very short time, or even for a considerable period." The author here gives a table from Devergie, shewing the viability or non-viability of various forms of monsters.

"5. If the obstetrician have formed his opinion as to the viability or non-viability of the misshapen fœtus, he must also remember, that a decided solution of this question is, in many cases, impossible before birth, as the condition of the child may be undiscovered: he must also bear in mind, that there are exceptions to the rule, and that a non-viable child may yet live during parturition. We are especially required to consider this, in con-

junction with the latter part of the third rule, (*a*) when we are called on to deliver a malformed fœtus, and (*b*) especially when we can choose between several modes of operation for the delivery of the mother, or (*c*) when the death of the child is demanded for the safety of the mother. (6.) If we are called on to deliver a child which is known to be malformed, it is well to consider how it may be born alive. Its viability should be assumed ; and our third rule should be attended to, in the choice of the mildest and least injurious mode of operating, the hand being preferred to instruments. We thus conscientiously fulfil our duty both to the mother and to the child, and do not bring the former into danger through extreme and violent measures. 7. If we have the choice of several operations, we must not think the life of the child of little value, because it is malformed ; nor must we be careless of giving pain to the child, while we spare the mother ; but we must choose that operation which we believe will terminate the labour securely, quickly, and happily for *both* individuals. That operation is not always most free from danger to the mother, which is but little felt by her, as perforation, embryotomy, etc. ; but very often that which is more painful, is at the same time more sure and speedy. 8. If the death of the child appear to be the last resource for the delivery of the mother, we have to consider whether or not the Cæsarean operation should be performed, because the child is malformed. This question is passed over in silence by some obstetricians, while by others it is answered in the affirmative, and by others again in the negative". (pp. 163-170.)

This quotation will sufficiently show the principles by which the author is actuated. His object throughout is to save both mother and child, when there is the least possibility of accomplishing this. When the death of the child is unavoidable, the importance of attending to its safety cannot be put in competition with that of the mother. "But", says Dr. Hohl, "the obstetrician must not lay his hand too hastily on deadly instruments, because he has recognised a monstrosity ; but he must endeavour to preserve both mother and child, if this can be done without prejudice to the mother". (p 173.) The treatment of the various forms of monstrosity is next passed in review ; and a considerable portion of this part of the book is devoted to an extended and lucid examination of the means which have been recommended for the delivery of double monsters. The author gives the preference to turning : but he also advocates, when required, perforation, or the use of the forceps.

The following extract from Dr. Hohl's remarks on embryotomy, of which he admits the necessity in circumstances of extreme difficulty, will be interesting in connexion with the memoir of Dr. Chailly-Honoré, on Amputation of the Arm in Shoulder Presentations, of which we propose to give a translation in our Digest of the Journals.

"It is a question whether the removal of a limb can be necessary ? I am a great enemy to the use of cutting instruments in midwifery, and prefer the hand, so far as it is at all possible to use it alone without danger to the mother. . . . . But it is undeniable, that the presentation of an arm may present an insuperable obstacle to manual assistance, and its removal may spare the mother much pain, and the operator much toilsome and fruitless exertion. In such cases, the operation is a necessary evil." (p. 218.)

Diseased Children. This subject is treated of under the following heads.

1. Diseases of the Fœtus connected with debility of single parts or of the whole body.
2. Diseases of the Fœtus connected with increase of the bulk of single parts of the body. Under this head are included, (*a*) Hydrocephalus, (*b*) Thoracic and Abdominal Dropsy ; (*c*) Watery Sacs and Tumours ; (*d*) Enlargement of Internal Organs.
3. Diseases of the Fœtus, with increased size of the whole body ; including (*a*) Cutaneous and General Dropsy ; (*b*) Hypertrophy.

In his preliminary remarks to this chapter, the author points out the importance of more attention being paid to the diseases attendant on intra-uterine life. He enters on a general consideration of the causes, which he refers in part to the parents, especially the mother, and in part to the fœtus and its appendages; and also makes some remarks on the symptoms produced, both with regard to the mother and the fœtus.

From this interesting and instructive chapter, we can make but one extract:

"Enlargement of Internal Organs. We find enlargement of the liver, of the kidneys, and of the urinary bladder, described by authors. The enlargement sometimes exists alone, and sometimes accompanies other diseases, especially dropsies.

"The *impediment to labour* is increased when other conditions are present which augment the general size of the body. Thus, in a case recorded by Seulen (*Neue Zeitschrift für Geburtskunde*, Band ii, p. 17), there was enlarged liver and general dropsy. In cases related by Müller, Schlesinger, and Vernhes, the liver, kidneys, and bladder, were respectively enlarged, in conjunction with ascites. The simple enlargement of an organ will also impede labour. Mansa relates a case in which the head was torn off with one arm; the impediment consisting in a greatly enlarged kidney, so that extraction could only be effected after removal of the abdominal viscera. (*Siebold's Journal*, Band xv, p. 3, 1836). Haase relates a case in which there was malpresentation, with prolapsed funis and enlarged liver; delivery was only effected by turning and evisceration. (*Neue Zeitschrift für Geburtsk.*, Band xi, p. 362). Cases of enlarged kidney have been recorded by J. F. Osiander, Hoering, and Oesterlen.[1] In Osiander's case, the breech presented, and the pains had lasted a long time without any effect. A foot was brought down, when the body was discovered to be enlarged, apparently from dropsy. As the other foot could not be brought down, on account of the size of the body and its untoward projection forwards, extraction was completed with one foot. The child made a few convulsive movements; it was at the seventh month; there was no fluid in the peritoneal cavity, but both kidneys were nearly as large as in a grown person, and formed a prominence on each side of the abdomen. (*Gemeine Deutsche Zeitschr. f. Geburtskunde*, Bd., i, p. 167). In Hoering's case, labour came on three or four weeks before the full time. When the head was born, the pains ceased; and the surgeon, after vain attempts to extract the breech, removed the head and thorax. Dr. Hoering found a tolerably large mass, after the removal of which, the rest of the child followed. The enlargement of the abdomen had been produced by the degenerated kidneys, which consisted of two large lobed masses. (*Würtemb. Medic. Correspondenzblatt*, Bd. vii, 1837, No. 16). In Oesterlen's case, the kidneys formed an enormous roundish tumour, filling the abdomen on each side. The child was born as far as the abdomen, which for some time resisted sharp labour pains and the traction exerted by the midwife. The child was dead. (*Neue Zeitschrift für Geburtsk.*, Bd. viii, p. 384). Other cases are related by J. F. Meckel, Chaussier, and Heusinger. The result was generally favourable to the mothers, although the children all perished.

"The *diagnosis* of such cases is important, but difficult, especially when dropsy is also present. When there is an impediment after the birth of the head, we have to remember that it may arise from adherent twins, from watery sacs and swellings at the lower part of the body, from abdominal dropsy, from distortion of the lower part of the spine, from the entrance of

[1] Intra uterine cystous disease of the kidney was made the subject of a paper by Dr. Cormack, in the *Edinburgh Monthly Journal of Medical Science* for August 1844. Dr. Cormack's paper contains, besides an original case, (illustrated by drawings,) the records, more or less perfect, of twenty instances, several of which are not referred to by Dr. Hohl.

the head of another child into the pelvis with the breech of the first, or from enlargement of the liver or kidneys. A careful external and internal examination will always explain the case, if we remember these facts, and do not allow the consideration of negative possibilities to remove our attention from what is actually present. If the enlargement is produced by a single organ, we find the abdomen more tense and firm than in dropsy; the abdominal walls resist pressure, and we meet with a solid body. This will point out the situation of the enlarged organ; and, if it be the kidneys, the abdomen is distended laterally. Even when there is fluid in the peritoneal cavity, a careful exploration will enable us to feel the enlarged organs. The diagnosis will be difficult if, as in Billard's case, labour is impeded from enlargement of the urinary bladder. The swelling is here more circumscribed than in ascites." (pp. 305-8.)

In the treatment of such cases, Dr. Hohl believes that much may often be done by careful manipulation of the body, without having recourse to instruments. But he allows that, in some cases, instrumental interference is absolutely necessary.

Dead Children. This is a well written and instructive chapter, but our space prevents us from making extracts.

The quotations which we have given from Dr. Hohl's work will sufficiently shew the amount of labour which he has bestowed on the subject; and the interesting and instructive method in which he has arranged his information. Without any pretensions to profound pathological reasoning, the treatise is highly practical; and every one engaged in obstetric practice, to whom it is accessible, must feel interested by the numerous cases with which it is interspersed, and receive valuable information on the treatment of a class of accidents attendant on parturition, which, though their occurrence be more or less rare, ought to be understood by the accoucheur.

Epidemics Examined and Explained, or Living Germs proved by Analogy to be a Source of Disease. By John Grove, M.R.C.S.L. Lond: 1850. 8vo., pp. 192.

The object of this handsome little volume, written in an agreeable style, and displaying no inconsiderable amount of multifarious reading, is sufficiently indicated by its title. The work consists of four chapters; the first being devoted to establish the Probability of Epidemic, Endemic, and Infectious Diseases depending upon Vital Germs for their Manifestations; the second to the Number and Value of Facts to support the proposition; the third to the Reasonableness of the Application of the Facts to the Inference; and the fourth to Results in Proof of the Tenableness of the Proposition.

Mr. Grove, almost at the outset, reasonably enough expresses a doubt whether we are much further advanced in the knowledge of the cause of pestilences, than the Jews in the time of Moses; and he subsequently adds, that all previous writers have signally failed to furnish us with any practical information. Impressed with a very natural conviction of the difficulty of the subject, the author, therefore, has applied himself, as he tells us, solely to the groundwork as the primary proceeding for a solid superstructure. But even with this limited direction of his labour, grave doubts are likely to be suggested by a careful examination of the arguments which he brings forward, whether he has, to any extent, succeeded in *proving* the dogma, somewhat prematurely laid down in the title which he has selected for his work. To our apprehension he has scarcely, in any appreciable degree, succeeded in lifting the veil of obscurity, or, we should rather say, of Cimmerian darkness, which rests on the origin of epidemic diseases, the subject remaining pretty much as he found it: all is dim, shadowy, and uncertain, as before.

In expressing this opinion, however, we utterly disclaim any intention of disparaging either the ability or acquirements of the author; on the contrary, we think he has succeeded as well as most writers, who may be tempted to essay the same task with no better materials. The truth is, that facts are entirely wanting, to afford any stable support for the hypothesis which he has espoused, and necessarily *ex nihilo nihil fit.* Indeed, in the existing state of our information, we look on a successful attempt to prove the doctrine referred to, not only as difficult, but simply impossible; nor is it within the compass even of the highest talent, to give permanency to any medical hypothesis, the groundwork of which has no better foundation than plausible conjectures, and analogical inferences. It is no doubt true, that a theory, if soundly based on an accurate observation of facts, may receive even strong corroboration from analogy; but to rely principally on the latter mode of reasoning, is to reverse the natural order of things, and appears to resemble somewhat too closely the architectural device of that ingenious people, described by the witty Dean of St. Patrick, whose custom it was to commence their buildings at the roof, and to finish them at the foundation. But to examine the subject a little more closely, suppose it were conceded (and this is perhaps going quite as far as the premises warrant,) that a certain degree of probability attaches to the causation of epidemic and infectious diseases by vegetable germs, cells, or sporidia, surely something more than analogical arguments, however plausible, will be required to win general assent to a doctrine so obscure and difficult. When we ask for facts, it will not surely be alleged that the so-called fungoid cells, seen by Mr. Spooner in variolo-vaccine lymph, or the microscopic discoveries of Brittan, Swayne, and Budd in the rejectamenta of choleraic patients, afford any solid foundation to this vegetable theory. Yet utterly insufficient for the purpose, as recent demonstrations have shown the alleged facts to be, the doctrine, we believe, has little else to repose on; and, as far as relates to cholera, it was unanswerably refuted almost as soon as it saw the light. To future advocates of the same hypothesis, it may therefore be reasonably suggested, as an indispensable preliminary to success, to demonstrate, in the first place, that vegetable germs, or spores of a definite character, are invariably present in epidemic diseases; and in the second place, that they are not present in other forms of disease, or in the ordinary conditions of health. This point once firmly established, it will be soon enough to speculate regarding their exact relationship to various maladies, to inquire how far they may be an effect and not the cause of disease, what it is that determines their periods of activity and of long abeyance, their capricious and uncertain movements, and in what manner they operate on the solids and fluids of the animal frame. But, supposing all this to be satisfactorily determined, even then so much would still remain to be elucidated, before we could derive from our investigation of the subject any practically useful knowledge, that we scarcely hope to see this mode of accounting for the causation of disease, transferred from the rank of a mere hypothesis, to the position of an established doctrine in science. At the same time, however, we believe, with the author, that the chemical and animalcular theories of disease are, in the present state of our knowledge, equally untenable; but it by no means follows, that if the views of Liebig, Kopp, and Simon, and of Henle, Holland, and Mitchell be erroneous, that his adopted theory is true. On the whole, we are constrained in candour to say that Mr. Grove has entirely failed to satisfy us that the origin of epidemics is to be found in living vegetable germs; nor shall we probably be the only exemplification of the statement with which he sets out, that "it is one thing for a man to convince himself, but a very different thing to be able to convince others".

But although Mr. Grove has failed to satisfy us as to the origin of epidemic diseases, we have much pleasure in stating that we have found a large fund of very agreeable and interesting information in his treatise. We had

marked several passages for transference to our pages, but we must content ourselves with one specimen, which the author quotes from Dr. Lindley's *Vegetable Botany*. Should the reader agree with us in thinking it very curious, we can with the more confidence refer him to Mr. Grove's volume for the further gratification of his taste.

"One of the most poisonous of our fungi is the *Amanita Muscaria*, so called from its power of killing flies, when steeped in milk. Even this is eaten in Kamschatka, with no other than intoxicating effects, according to the following account by Langsdorf, as translated by Greville. This variety of *Amanita Muscaria* is used by the inhabitants of the north-eastern parts of Asia, in the same manner as wine, brandy, arrack, opium, etc. is by other nations: 'The most singular effect of the *Amanita* is the influence it possesses over the urine. It is said, that from time immemorial, the inhabitants have known that the fungus imparts an intoxicating quality to that secretion, which continues for a considerable time after taking it. For instance, a man moderately intoxicated to-day, will by the next morning have slept himself sober, but (as is the custom) by taking a teacup of his urine, he will be more powerfully intoxicated than he was the preceding day. It is, therefore, not uncommon for confirmed drunkards to preserve their urine, as a precious liquor against a scarcity of the fungus. The intoxicating property of the urine is capable of being propagated; for every one who partakes of it has his urine similarly affected. Thus, with a very few *Amanitæ*, a party of drunkards may keep up their debauch for a week.'" (P. 167.)

Cholera in the Asylum. A Contribution to the Statistics of Insanity and Cholera. By Thomas Giordani Wright, M.D., etc., etc. 8vo. London: 1850.

The volume before us is, in part, made up of "Reports on the origin and progress of pestilential Cholera, in the West Yorkshire Lunatic Asylum, during the autumn of 1849, and on the previous state of the Institution"; but it also contains a detail, at considerable length, of the views of the author, who is Visiting Physician to the Asylum, on the diseases alluded to, as well as some practical and valuable observations on their most appropriate treatment. Various points, connected with both the mental and the bodily malady, are well elucidated by a number of elaborate statistical tables, as the reader will find on reference to the work itself, which is written with much candour, perspicuity, and cleverness. To enable the reader, however, to judge for himself, a few extracts are subjoined; and we only regret that our space will not allow us to draw at greater length on the valuable contents of Dr. Wright's volume.

"All experience in treatment of the insane proves, that a full and nutritious diet tends much to the recovery of the patients, in a majority of cases, even under maniacal excitement, as well as other forms of mental disease; an axiom which is corroborated by the fact, that in asylums, where the diet is liberal, the proportion of recoveries is generally larger than in those where it is more meagre."

The following "Proportion of recoveries to the numbers admitted into English asylums, in which pauper patients only are received, to December 1848": is extracted from the table at p. 40.

	Years Established.	Cured per cent. on admissions.
County Asylum of Lancaster	32	40·1
——— West Riding	30	41·9
——— Suffolk	20	42·1
——— Middlesex (Hanwell)	18	24·4
——— Kent	15	27·7

The disparity here shewn, admits, we have no doubt, of a satisfactory explanation; but the fact is worthy of remark; and, still more so, "the comparative

expense of an equal number of cases, admitted early after being attacked with insanity, and of cases neglected and delayed. Of the former, all were cured, at a cost of about £9 each; while of the latter, those who died cost upward of £30 each, and those who remained about £15 each *per annum*": a tolerably forcible comment on the homely adage of "a stitch in time".

With reference to pestilential Cholera, it may be premised that Dr. Wright, in compiling his tables, restricts the term to those cases in which collapse was present. "Diarrhœa without collapse, therefore, does not constitute Cholera; livid collapse, with or without diarrhœa, does." But, on inspecting the tables, it appears that diarrhœa and Cholera prevailed epidemically in the asylum at the same period; the number of cases of the former having been two hundred, thirty of which ended in Cholera, and of the latter one hundred and thirty-two, in a given period; facts from which the reader may draw his own conclusion as to the relationship between the two maladies. The disease was very fatal, one hundred and six of the Cholera patients having died; the entire number being, as just stated, one hundred and thirty-two; and the number of inmates in the asylum amounting to six hundred and twenty. "By far the highest ratio of recoveries was among cases preceded by diarrhœa." And, in the majority of patients on full diet, their illness ended in diarrhœa only; while a larger proportion of those on common diet were liable to Cholera, and were chiefly attacked without premonitory symptoms" (p. 72). Dr. Wright attributes the outbreak of Cholera, in the asylum, to infection; but the facts, as detailed by him, will not be universally assented to as demonstrative of his opinion. The following remarks on the symptoms are interesting: "Two peculiar features of the cramp accompanying Cholera are, that it was not confined to the stage of collapse, and that the spasmodic rigidity was almost exclusively in the flexor muscles" (p. 99). Again, "The urine was not suppressed so invariably as it is often said to be in Cholera; for we find that one-third of the patients passed urine during the period of collapse; that is in twenty cases, of whom three recovered, and seventeen died. Some made water copiously while livid, and almost pulseless" (p. 101). "Of consecutive fever we had very few examples. The general disturbance of Cholera abated gradually, and the patients became convalescent, without any intermediate stage".

Dr. Wright ascribes the seat of Cholera to the ganglionic system of nerves; but we have not space to examine his train of reasoning on the subject. We must, however, conclude with simply stating, that all modes of treatment, including chloroform, and the mercurial treatment of Dr. Ayre, were found alike inefficient in the blue stage of the disease.

APPENDIX. *We think it right to introduce in this place the following letter from* DR. KNOX, *of Strangford.*

TO THE EDITOR OF THE LONDON JOURNAL OF MEDICINE.

SIR,—In a copy of a valuable and ably written volume termed *Cholera in the Asylum*, by Dr. T. G. WRIGHT of Wakefield, which the author has politely forwarded to me, I find my attention drawn by him to the following passage: "In DR. KNOX's little volume, which contains an admirable epitome of the bibliography of Cholera, an erroneous inference is quoted from this note, which I feel sure the author will do me the justice to correct, when he has an opportunity. The deduction is, that fifty millions of persons having died, there have probably been, *at least*, twice as many cases of Cholera: not as Dr. KNOX assumes, that out of a given number of cases one-half had died. The reader will, at once, perceive an obvious distinction between the inferences computed".

The explanation required by Dr. Wright, would most appropriately appear in a second edition of my Treatise; but as I am not exactly aware what time may elapse before that may be called for, I shall esteem it a favour if you will afford me, in the mean time, a brief space in your excellent and widely

circulated Journal, to adjust the question. The most satisfactory way of doing this, as it appears to me, is to quote *verbatim* both Dr. Wright's observation and my own, as follow:

"Therefore, averaging one-half of those attacked to have died, there must have been since 1817, upwards of *one hundred millions of cases* of spasmodic Cholera". (Dr. Wright in the *Lancet*, 1833, and reprinted in his *Reports*, p. 127.)

"Dr. Wright having calculated that of one hundred million cases occurring since 1817, one half have perished". (Knox's *Inquiry into the actual state of our knowledge of Cholera*, etc., p. 75.)

I at once admit that the distinction, pointed out by Dr. Wright in the passage which I have just quoted from his interesting Treatise, is sufficiently obvious; and this admission will, I trust, prove satisfactory to him. But as regards the actual state of the matter, it appears to me to be a distinction without any very substantial difference; for my inference as to the mortality of the disease was by no means solely founded on Dr. Wright's authority, but on a variety of tables which I had collected, and several of which are published in the body of *The Inquiry*. I may add, that in one of the most recent works on the subject (*Cholera and its Causes*, by Dr. Bushnan) the learned writer expressly states that "the mortality of the disease was never reduced much below what may be termed the natural standard: viz., about 50 per cent. of the cases treated, in any given and extensive series of attacks". At the same time, to avoid any misinterpretation of my views on the subject, it is necessary to state that my estimate alluded to, refers only to the more malignant types of the epidemic; for, believing as I do, that the different forms of Cholera are identical, it would, I conceive, be totally at variance with the fact, to assert that one-half of all the persons affected with that disease perish. On the contrary, I have expressly stated elsewhere that "in the milder kinds of Cholera, it is certain that few die, and even in its more aggravated forms many recover; so that the asserted inutility of medicine can only be applied to those cases, very numerous, no doubt, in which the epidemic exhibited an extreme degree of malignancy". *Inquiry*, p. 185.

Believe me to remain, Sir, very faithfully yours,

Strangford, Downshire. ALEXANDER KNOX, M.D.

PRACTICAL OBSERVATIONS ON THE DISORDERS AND DISEASES OF EUROPEAN INVALIDS ON THEIR RETURN FROM TROPICAL CLIMATES. By JAMES RANALD MARTIN, F.R.S., Surgeon Bengal Army, retired, late Presidency Surgeon, and Surgeon to the Native Hospital, Calcutta. Pp. 80. London: 1850.

When we consider the vast number of our countrymen who are compelled, by the exigencies of service or mercantile pursuits, to pass a large portion of their lives within the tropics, we must feel the importance of any discovery which can minister to their comfort, preserve their health, or prolong their lives. The natives of Hindustan and the negro inhabitants of our West Indian Colonies are fitted alike by nature and by habit to bear with impunity influences which are fatal to Europeans; and although the ratio of mortality among the latter has of late been diminished by the improved condition of society, of temperate habits, and more enlightened views on the part of those in authority, yet the number of victims is still great, and the list of those who return to their native land broken in constitution and health, is still formidable.

The work before us is the production of a gentleman, whose name has long been honourably known as co-editor with the late Dr. James Johnson of the standard work on Tropical Climates; and this modest volume is well calculated to sustain his reputation. It is a reprint from a cotemporary, and forms part of a series of Essays, to be published as a whole, we hope, at no distant time.

The diseases of Tropical Climates are as essentially abdominal as those of

this country are pulmonary; the whole force and tendency of external agents is to act in that direction. During the hot and rainy seasons in India, the perspiration is prodigiously increased, amounting in the latter season to an exhausting discharge; as if the very serum of the blood were exuded: and mark the consequence:

"The perspiration is not carried off by evaporation, while the transudation is enormously increased; thus heat accumulates in the body, and the local action of cold produces serious consequences, rendering the system susceptible of the least impression from cold or malarious influences, with a strong tendency to congestion in all the abdominal organs. The excessive watery discharge from the skin during this season must of necessity have the effect of rendering the venous blood unnaturally dense, and of thus causing the European to be more liable to congestive forms of disease. Dr. C. J. B. Williams refers the disposition to liver complaints, dysentery, and cholera to the stimulating properties of the blood, deprived, as we have seen, of more than its usual amount of water and of less of its hydro-carbon". (p. 6.)

This picture truly represents one phase of the existence of the Anglo-Indian, and let us see how he fares in the cold season:

"The now altered balance of the circulation and nervous function, the entire drying up of the surface, and the corresponding congestion of all the viscera; the less arterialized and viscid state of the blood; the diminution of the biliary, and the enormous increase of the renal secretions; the oppressed state of the cerebral, thoracic and abdominal functions, leading to the most formidable and complicated diseases, and to the suppression of chronic eruptions in a previous state of development, all render the cold season of Bengal the reverse of healthy". (p. 8.)

Fever, generally continued and of an active character, is the most common result of the hot season. In the succeeding rainy months, fever assumes a remittent character, with diminished vital action, and dangerous abdominal congestion. As the season advances, dysenteries, as well as fevers, become more frequent, severe, and complicated, the former implicating the whole of the abdominal organs. Cholera is most rife and fatal in April and May. The cold season is characterized again by its peculiar diseases; intermittent fever, with the sequelæ of tumid liver and spleen—insidious hepatic inflammation, terminating rapidly in abscess—apoplexies—paralyses—suppression of eruptions—and visceral congestion of every sort, now hold their sway, blighting the hopes and laying low the head of many an ardent and gallant spirit.

Great, indeed, is the change encountered by the Anglo-Indian on his return to Europe. "Here he enters at once, and without preparation, on a season of eight months of cold and moisture, in exchange for the same period of tropical heat and excessive moisture conjoined. This is a great revolution in climate; and it at once induces a corresponding physiological change in the system, stamping the individual with a peculiar physical character. The exhalant organs of the skin, which for so long a succession of years had been called into most violent action, now become sealed as if with a coating of varnish. From the previous extensive, equable, and sometimes violent determination to the surface of the body, he is suddenly subjected to an opposite action, an extreme dryness of the surface, amounting occasionally to a furfuraceous desquamation of the cuticle, and at other times to a miliary eruption, accompanied by a determination of the whole mass of blood inwards; a loaded condition of the great venous trunks of the abdominal, thoracic and cerebral cavities, with diminished power in the heart and arteries". (P. 11.)

As might be expected, passive congestion is the condition most prevalent, under the conditions just stated; and no matter what his previous disease in India may have been, the morbid condition now superadded proves a serious difficulty to the invalid. It is a very prevalent idea, that Indians are much less susceptible of cold during the first winter after their return than subsequently, as if they had in them, from long broiling, such a store of caloric

as kept them warm in spite of Jack Frost and his confederates. Mr. Martin states that this opinion is erroneous.

"My experience here in the last nine years would lead me to conclude, that if there really be any such immunity from cold during the first year of residence in England, as we hear spoken of so generally in India, it is enjoyed only by the healthy and robust. Numberless examples have satisfied me as to the truth of this observation: a dry or even frosty cold is well borne, comparatively, even by the enfeebled, tropical invalid; but the *damp* cold produces sensations of indescribable distress and depression in persons possessed of considerable powers of resistance.....The truth is, that in general the cold which a tropical invalid can bear without injury for a year or two after his return to Europe, is not of a low degree; and in extreme cases of disease, the in-door temperature carefully regulated during the winter and spring seasons is that alone which is safe to him. We cannot 'comfort' such a person 'with cold' as the Americans do their English customers with ice." (P. 12.)

"Anæmia," Mr. Martin informs us, "is common to fifteen out of twenty of tropical invalids on their return to Europe. In this morbid state, the paucity of blood corpuscles causes a diminished absorption of oxygen, a quicker circulation, and consequently a diminished animal heat. I have no doubt, also, that by long-continued exposure to tropical heats and malaria, the muscular system, including the heart, is relaxed and weakened, becoming irritable and defective in contractile power. I believe that to these circumstances we must refer the diminished power of the forces that circulate the blood, and the intermitting character of the pulse so common to old Indians." (P. 16.)

These observations are of importance in reference to the management of old residents in India. There are few physicians in this country who are practically acquainted with the temperament of such patients, but there are many who from circumstances may be called upon to prescribe for them. These hints are, therefore, of great value, assisting us in forming a diagnosis, and directing us in the application of our treatment. We regret that our space will not admit of our extracting the admirable and forcible description of anæmia as presented in these cases; nor can we attempt to do justice to the observations laid down for the management of this disease; for them we must refer to the work itself, and pass on to the second subject specially treated of.

Passive Congestion of the Liver. This is generally produced by the application of cold to the surface of the body, and not unfrequently by errors of diet. The organ is oppressed by an accumulation and stagnation of blood, while its function is paralysed; with all this we have also very frequently a weakened condition of the heart and arteries, and a diminished power of reaction. Much judgment is required in the treatment, for it often happens that we have to encounter a formidable disease in a debilitated person, who has perhaps been subjected to profuse bleeding, copious mercurials, and other heroic measures employed in the Tropics, where a few hours suffice for a disease to run its course unto death.

The natural result of great over-excitement and frequent disturbance of the hepatic function, is torpor of the liver. The cold and damp of this climate is especially likely to produce it; but there is another exciting cause too generally overlooked.

"It has," says the author, "been observed in Europe, that persons who have used mercury either in the liberal or rapid manner, or as a protracted alterative course, have frequently been afflicted subsequently with severe forms of hepatic disease. There can be no doubt, that through the repeated use of this mineral, even when necessarily exhibited, the hepatic function is inordinately stimulated, to be proportionately enfeebled thereafter. The action of mercury on the liver may be viewed as having a close analogy to

the primary excitement and subsequent exhaustion of the functions of the stomach, produced by dram drinking". (P. 45.)

We now come to a portion of the subject which Mr. Martin has made exclusively his own. Some fifty years ago, an officer arrived at Bombay from the interior, being on his way to England on account of enlarged liver: fortunately, he fell into the hands of Dr. Helenus Scott, who treated him after a peculiar manner, and his health became so speedily restored, that he was enabled to return to his troops and soon after to command them in a battle; that battle was Assaye, and that officer the Duke of Wellington. The treatment employed in his case was submersion in nitro-muriatic acid baths; a method which made some noise at the time, but fell into disuse, and so little was it appreciated, that in *Christison's Dispensatory*, Edition, 1842, it is thus spoken of: "It (nitro-muriatic acid) was introduced into the Dublin Pharmacopœia in 1826, in consequence of its having been at the time a fashionable remedy in the form of foot-bath for the treatment of syphiloid diseases and chronic diseases of the liver. It was strongly recommended for these purposes not long before by Mr. Scott of Bombay, and his recommendation brought it for a season into no little notoriety; but it is now, I believe, entirely abandoned". (P. 41.)

Happily for suffering humanity, the matter has been taken up by Mr. Martin, and rescued from the oblivion into which it had so undeservedly fallen. It is but justice to that gentleman to say, that he has worked the subject out with great talent, zeal, and diligence. He has fortified his positions, by bringing to their aid information derived from chemistry, physiology, and pathology, and has showed that this method of treatment is as sound in principle as efficacious in practice. "It is a very powerful remedy: it acts powerfully in promoting the depurative functions of the liver, kidneys, bowels, and skin. I have, therefore, during more than twenty years in India and England, used it in many of the chronic affections of the liver, functional and structural, believing it, on the ground of my experience, to be an agent of the first order of importance." (P. 48.)

It has long been a subject of surprise to us, that the endermic mode of administering medicines has been so little practised. Why, for instance, is not iron in solution more frequently introduced into the system through the medium of the skin, when it is found to constipate the bowels if taken by the mouth? Why is not colchicum more frequently administered in the same manner, when its use is indicated, and yet when there are objections to the ordinary mode of prescribing it? We are firmly of opinion, that medicinal baths are therapeutic agents of great power, and that they are, in this country, by no means appreciated as they deserve.

The baths prescribed by Mr. Martin are thus composed. Three parts of hydrochloric acid, two parts of nitric acid, and five parts of water, are first carefully mixed; of this, three ounces by measure are added to each gallon of water, and for a recumbent bath about seven gallons is requisite. It is, of course, used warm, and produces a sort of formication on the skin. If used twice daily, a diarrhœa usually takes place from the fourteenth to the thirtieth day, and sometimes earlier, and this indicates that its emulgent action has commenced. Having had some experience in its use, we can bear cordial testimony to its efficacy; we have seen a patient diminish in circumference over the ribs, *five inches* in two months, whilst under this treatment; we have seen colour brought into the cheeks, and life into the eyes, in a case where an enormous liver was complicated with lumbar abscess and scrofulous disease of the hip-joint. In another instance, a patient within our knowledge is now in the enjoyment of robust health, who more than a year ago was condemned, by some of the most eminent of our physicians, to a brief existence of perhaps a few months. This gentleman recovered under the care of Mr. Martin; and we gladly add our testimony, whatever may be its worth, to the efficacy of the nitromuriatic baths in hepatic disease.

The length of time during which they must be used, necessarily varies with each case ; but two, or at the utmost four months, generally suffice to work a marvellous change. Amongst the valuable qualities of this therapeutic agent, is the fact of its influence not being in the least degree counteracted by opium. In the words of the author :

"We obtain, in short, from the use of the mineral acids in the treatment of chronic disease, all the remedial aids which can be obtained from mercury in the treatment of acute disease ; and that without any of the injurious consequences that so frequently ensue from the exhibition of the last-named agent. Persons of anæmic or scrofulous habit are liable to serious injury from the use of mercury, whether given in large doses during many days or in alterative doses, during weeks or months. It is quite otherwise in respect to the acids, the most marked and lasting improvement of the general health being the ordinary result of their exhibition." (P. 57.)

Every page of these essays bears the impress of a superior mind, sound judgment, lucid views, and enlarged experience. The ground opened up by the author had been almost hopelessly abandoned; but it is now proved to be rich and fertile. Besides the Indian invalid, there are scattered throughout this land hundreds of individuals, who may indeed be said to have entered into the dark valley of the shadow of death. On them,—the victims of hepatic disease,—there now beams a bright star of hope : and we feel that in speaking thus strongly of the treatment advocated by Mr. Martin, we are simply discharging our duty. We may add that the value of the work is materially enhanced by the introduction of many highly interesting and instructive cases.

Atalectasis Pulmonum ; or Closure of the Air-Cells of the Lungs in Children. By George A. Rees, M.D. pp. 42. London : 1850.

The term Atalectasis is derived by the author from *ατελης*, *imperfect*, and *εκτασις*, *expansion* : the word therefore ought to be Atelectasis.[1] It is employed to designate a peculiar condition of the lungs, to which the term carnification has sometimes been applied.

The author divides the affection into two forms ; one, where it exists as a defect from the hour of birth, and the other, where it occurs as a disease after birth. In the first case, the lung never assumes any other than its fœtal condition ; in the second, the disease is induced at various periods after birth. Dr. Rees states that he was the first to describe this second form in the *Medical Gazette* for January 1839.

The *pathognomonic symptom* of Atelectasis is an altered movement of the ribs in respiration ; during the inspiratory effort, the ribs move inwards or backwards towards the mesial line of the trunk, instead of outwards as in ordinary respiration, thus diminishing, instead of increasing, the diameter of the cavity. In emaciated patients there is also another remarkable symptom, namely, an undue tumidity of the abdomen ; for, in consequence of the altered condition of the thoracic parietes, the abdominal muscles lose, to a great extent, their power of compressing the viscera, and hence the intestines become distended with air, besides exhibiting the phenomena of venous congestion.

The post-mortem appearances in Atelectasis are a solidified condition of the lung, which does not crepitate on pressure, a flabby consistence, and a dark purple colour ; a compact structure, and a specific gravity greater than water. But the most curious fact, and one which serves to distinguish Atelectasis from hepatization is, that in the first, the tissue may by inflation be made in a great measure to resume its natural healthy appearance ; for in Atelectasis the tissue is only closed and the lung is collapsed, while in hepatization, the

[1] We write *Atelocheilia*, signifying an imperfect development of the lip, and *Ateloëncephalia*, an imperfect development of the brain.

result is due to interstitial deposit, and no attempt at inflation can be attended with success.

Dr. Rees attributes the disease in great measure to the rearing of children in unhealthy localities, and therefore proposes that the treatment should be chiefly of a hygienic nature. He says that it should consist in the removal of the patient (if this can be accomplished) to a healthy locality ; in a judicious attention to diet and regimen ; and also in the administration of such remedies as promote the action of the skin and kidneys, relieve congestion of the hepatic vessels, and at the same time give tone to the system. Dr. Rees gives several interesting cases in illustration of his views.

We consider this little work as a valuable contribution to modern pathology and practice. We entirely adopt the opinions of the author, and commend them, and also the whole subject, to the study of our readers, but particularly to those who, from being engaged in family practice, have a large proportion of their patients among infants and young children.

On the Identity or Non-Identity of Typhoid and Typhus Fevers. By William Jenner, M.D., Professor of Pathological Anatomy in University College, London. pp. 102. London : 1850.

On the Identity or Non-Identity or the Specific Cause of Typhoid, Typhus, and Relapsing Fever. By William Jenner, M.D. pp. 20. 1850.

Dr. Jenner has spent three years at the London Fever Hospital, in endeavouring to solve the problems involved in the titles of the above publications ; and we are doing only a simple act of justice to him, when we state, that whether his conclusions be generally admitted or not, it is impossible not to acknowledge the zeal, and uncommon ability with which he has pursued his investigations. The results of his laborious inquiries are now before the public ; and the two works, the names of which are above quoted, contain an epitome of his views. Dr. Jenner is not a theorist either upon etiology or treatment ; and while maintaining that the causes of Typhoid and of Typhus Fever are essentially distinct, he does not professs to have discovered what the cause of either really is. Upon the treatment of these affections, he does not say a word. Indeed, the whole object of his works is to draw a comparison between Typhoid and Typhus Fevers, and to prove their non-identity ; and as we have just remarked, he has acquitted himself in his self-imposed task with distinguished ability.

Dr. Jenner informs us, in his work on the *Identity or Non-Identity of Typhoid and Typhus Fever*, that he has made notes of nearly 1000 cases during his researches at the London Fever Hospital ; but he (very properly, we think) selects for publication only those cases which proved fatal, and of which he had the opportunity of making post-mortem examinations. The number of these fatal cases, in all of which the symptoms were observed during life, and in which examinations were made after death, amounted to sixty-six, which Dr. Jenner has divided into two groups ; in forty-three, there was no appreciable disease of Peyer's patches, and in the remaining twenty-three, those structures were manifestly in a morbid condition. The first class of cases, were instances of Typhus, and the second class, of Typhoid Fever. The work which stands first at the head of this article, contains an analysis of these sixty-six cases. The age, sex, previous health, general condition of body, size, and complexion of the patients, are all carefully noted and compared ; the duration of the disease and the nature of the accompanying eruptions are minutely recorded ; and a *catalogue raisonnée* of the symptoms during life, and of the appearances observed after death, makes up the chief bulk of the volume. It would be impossible for us to follow the author through all his investigations ; but we may give the following, as among the most interesting and important conclusions which he has drawn from his labours.

Dr. Jenner strongly maintains that Typhoid and Typhus Fever are diseases which have a totally different origin, and are developed in a different manner; and he considers that they are quite as distinct as measles is from scarlatina. The chief anatomical difference consists of the presence of disease of Peyer's patches in Typhoid Fever, and its absence in Typhus; and it was accordingly found, that while in the former fever these patches were always diseased, in every one of the forty-three cases of Typhus Fever there was no recent disease whatever.

The diagnosis of these affections during life may be satisfactorily made by an observation of the concomitant eruption. In Typhoid Fever, it consists of a number of rose spots, of a papular character, slightly elevated, never acuminated at the apex, never flat, but invariably rounded, of a bright rose colour, gradually fading away into the natural hue of the skin, and disappearing completely upon pressure. The eruption accompanying Typhus Fever, is called a mulberry rash by Dr. Jenner; this eruption is never papular, and consists of very slightly elevated spots, of a dusky pink colour. Instead of disappearing in two or three days, like the rose spots of Typhoid Fever, the mulberry rash soon undergoes a remarkable change; the spots become of a darker and more dingy colour, and they only fade on pressure; and after exhibiting these characters, they disappear in some cases. In others, however, they reach a third stage, and the spots change into true petechiæ, *i. e.*, spots presenting the following characters: a dusky crimson or purple colour, quite unaffected by pressure, a well-defined margin, and a total absence of elevation above the level of the cuticle. The usual situation of these spots is on the trunk and extremities, but occasionally they are limited to the trunk, and now and then they are observed on the face.

The *Tongue* is stated by Dr. Jenner to have exhibited a remarkably different appearance in Typhoid and Typhus Fever. It was much more frequently moist throughout the disease in Typhoid, than in Typhus Fever. When dry, it was often red, glazed, and fissured, in the former; but it rarely exhibited these characters in the latter. In Typhoid Fever, when the tongue was brown, its hue was of a yellowish-brown, instead of a blackish-brown. "The small dry tongue, with red tip and edges, smooth, with pale brownish-yellow fur, fissured, the surface seen between the fissures being deep red, may be considered differentially, as a diagnostic sign of Typhoid Fever."

In the treatise on the *Identity or Non-Identity of the Specific Cause of Typhoid, Typhus, and Relapsing Fever*, Dr. Jenner draws an analogy between these diseases and small-pox, scarlatina, and measles; and he maintains, that just as the three last diseases, while presenting certain characters in common, are nevertheless essentially distinct in their specific causes, so the three fevers are characterized by differences equally well marked. The rose spots observed during life, and the presence of disease in Peyer's patches seen after death, are peculiar to, and absolutely diagnostic of, Typhoid Fever: the mulberry rash, often passing into true petechiæ, and the absence of disease in the agminated glands, are characteristic of Typhus; while the Relapsing Fever is distinguished by the recurrence of the symptoms after apparent convalescence.

In answer to the view which has been taken, that Typhoid and Typhus Fever are merely modifications of the same disease, induced by variations of the epidemic constitution, Dr. Jenner maintains that his experience is in direct opposition to such a statement. "I may remark," he says, "that during three years' attentive watching of nearly all the cases admitted into the London Fever Hospital, in which time there have been epidemics of Relapsing Fever, Typhus fever, and Cholera, and, consequently, according to those whose opinions I am here examining, as many changes in epidemic constitution, I have seen no alteration in the general or particular symptoms of either Typhus or Typhoid Fevers, or the lesions observed after death from either, *i. e.*, from November 1846, to November 1849. The cases of Typhoid

Fever, which disease is rarely absent for a fortnight from the wards of the hospital, preserved their symptoms unchanged, and presented the same lesions, whatever the epidemic constitution that prevailed: the same is true of Typhus Fever. Cases of the latter disease are also rarely absent from the wards of the same institution."

Dr. Jenner's work is not only a valuable contribution to practical medicine, but is truly a model to all pathological writers. The conclusions are drawn only after the most careful investigation of facts; and the symptoms and post-mortem appearances are detailed with a minute accuracy, which, though it may appear tedious to the superficial reader, is, in our opinion, absolutely necessary, not only in the investigation of the nature of fevers, but of the history of diseases in general. The habits of the present day have produced much false philosophy in the art and science of medicine; and we hail with pleasure the appearance of a work like that of Dr. Jenner, which draws conclusions only from those true sources which are the foundations of rational medicine.

La Homeopatía, ó Farmacologia Analogo-Infinitesimal, ante el Criterio y el Sentido Comun. Lecciones de Refutacion de la Doctrina de Hahnemann, esplicadas en la Facultad de Medicina de la Universidad de Madrid al concluir el Curso de 1849 a 1850. Por Don Tomas de Corral y Ona, Doctor en Medicina y Cirujia, etc. pp. 258. Madrid: 1850.

[Homœopathy, or Analogo-Infinitesimal Pharmacology, tested by Reason and Common Sense: being Lectures delivered in the University of Madrid, during the session 1849-50. By Dr. Tomas de Corral y Ona.]

After some preliminary remarks on the antipathic, alopathic, and homœopathic methods of treating disease, the author examines the *Organon* of Hahnemann, which he shews to possess none of the characters of order, method, or harmony, which its name might lead one to expect; for "the principles are mixed up with the accessory ideas; the antecedent often follows the consequent; the primary ideas sometimes do not afford a clue to those which follow; and his principles, foundations, and chief ideas, seem as if they had been rained from the sky, without preparation or announcement." Having disposed of the *Organon*, he examines the homœopathic law, *similia similibus curantur*. In the theogony of Hindostan, Egypt, and Greece, in logic, natural philosophy, mathematics, and chemistry, the operation of two opposing forces has been recognised from the earliest ages; and the knowledge of these forces is treated of by the author as a system of *dualism of forces (dualismo virtual)*. The homœopathic law is in direct contradiction to this universal principle; and it cannot be applied to the human body, for there the operation of the law of contraries, is evident both in the physiological and in the pathological states, and is the foundation of rational treatment.

The system of infinitesimal doses is next judged at the tribunal of common sense; for the author very truly says, that it is impossible to reason with those who will gravely maintain, that, if common salt be homœopathically diluted, the taste ought to be felt as the dilution is increased; or that the power of a substance increases in the direct ratio of its diminution.

It may be said by some, that it is beneath the dignity of a University Professor to elaborately refute, *ex cathedrâ*, the rank nonsense of homœopathy; and if we were sure he had to teach a body of young men, well educated, and with well disciplined minds, we would subscribe to this opinion. But in Spain, the preliminary education of the medical profession, though not so much neglected as it is in this country, is still so lamentably deficient as fully to justify the anti-homœopathic lectures of Dr. de Corral y Oña. It is certainly more honourable for the University of Madrid to have one of its professors ably exposing the fallacies of homœopathy, than it is for another university, nearer home, to tolerate the odious scandal of a globulist in the chair of Pathology!

CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS.

PRACTICE OF MEDICINE AND PATHOLOGY.

ABORTIVE TREATMENT OF VARIOLA BY THE APPLICATION OF COLLODION.

Collodion has been found useful in arresting the course of traumatic erysipelas and of herpes : and the *Bulletin Général de Thérapeutique* for Oct. 30, 1850, contains an account of a case occurring in the practice of M. Aran, which seems to shew it to be an efficient agent in producing abortion of the variolous pustules. We abridge the account given.

Case. A young man, aged 19, was admitted into the Hôpital Bon-Secours, in Paris, with confluent small-pox in an early stage. The face was thickly covered with small pustules, and there was already intense swelling and redness. The fever was very moderate. M. Aran applied a layer of Collodion over the face, to produce abortion of the pustules. In two days, the lips, and lobes of the ears, which had not been covered, shewed well-developed pustules ; while scarcely anything could be seen through the Collodion, and, on raising it, the pustules were found arrested. The Collodion having become accidentally removed in parts, the exposed portions of the face, in fifteen or eighteen hours, presented well-developed pustules. It was again applied, and constantly watched, to prevent the patient from tearing it off during his delirium. On the eighth or ninth day from the first application of the Collodion, it began to fall from the eyebrows, leaving them of a rose colour, without any scars. On the following days, the Collodion fell from the other parts of the face, together with the desquamated epidermis. The skin of the face appeared as if it had undergone desquamation after erysipelas. On the other parts of the body, the eruption, which had been very confluent, had left numerous spots and scars. The general condition of the patient was most satisfactory.

Collodion seems to act as a mechanical constringent of the tissues. This view is supported by the fact that, in the latter days of the suppurative stage, the pustules were seen to appear at the edges of the layer, and to raise it, while nothing of the kind was observed elsewhere. M. Valleix has also used the same remedy in a case of *variola discreta*, with perfect success ; and in a case of non-confluent small-pox, M. Aran has procured the abortion of almost all the pustules on the face, so as to render it extremely difficult to find a mark.

BRUCINE IN LEAD-PALSY.

As an internal remedy in lead-palsy, Brucine possesses advantages over strychnine, as it is capable of being safely administered in larger doses. M. Bricheteau gives it at first in doses of two or three centigrammes (about one-third to half a grain) daily, and sometimes raises the quantity to eighty centigrammes ; but this is rarely necessary. At the dose of from ten to fifteen centigrammes, it produces slight twitchings, with a creeping sensation in the limbs. When the dose is raised to twenty or twenty-five centigrammes, the twitchings become more powerful, and begin to be accompanied by stiffness of the limbs, which are put in a state of forced extension. When the patients are still, the convulsive movements are slight : but if they move in bed, the twitchings and tetanic symptoms appear. When they walk, their limbs become stiff, and they fall forward, if not supported. These symptoms are not accompanied by disturbance of the intellect, nor by headache.

In a case lately under the care of M. Bricheteau, of paralysis of the extensors of the thumbs and fingers, the good effects of this treatment were complete. The paralysis was complete ; but, in a month, the patient was able to raise the thumbs, and ultimately made a perfect recovery. (Abridged from *Bulletin Général de Thérapeutique* of October 15, 1850.) .

CHLOROFORM IN LEAD-COLIC.

Dr. Aran has published, in the *Bulletin Général de Thérapeutique* for October 15, 1850, the results of his experience in the use of Chloroform as a remedy in Lead-Colic. His observations are confirmatory of the opinions which we expressed at page 285 of this Journal, for March 1850, in referring to the paper of Dr. Blanchet in the *Journal de Chimie Médicale*. The following are the conclusions at which Dr. Aran has arrived.

There can be no doubt as to the possibility of very soon curing Lead-Colic, by the internal and external use of Chloroform. The advantages of this treatment are striking. Lead-Colic is eminently a painful affection; Chloroform removes the pain. The disease is probably dependent on intestinal spasm, which tends to produce the characteristic obstinate constipation; Chloroform calms the spasms. It does not, indeed, cause the lead to be evacuated from the system; but, by the employment of sulphur and alkaline baths, the skin is freed from the metal; and the same effect is produced on the intestines by enemata. No inconvenience is likely to arise, when the evacuations are re-established slowly and with difficulty, from the use, for some days, of castor-oil or some other mild purgative. Drastic purgatives frequently increase the colic, and even produce vomiting, when given before the pains are calmed and the evacuations re-established. Chloroform, applied principally externally, immediately calms the pains, and facilitates the use of purgatives, if it be found necessary to employ them.

The mode of external application, adopted by Dr. Aran, is to pour from one to two drachms of Chloroform on a wet cloth, and keep it applied to the abdomen for a quarter or half-an-hour. He also gives it in mixture; and in enemata, preceded by a common injection. It is on the local application, however, that he seems to place most reliance. The enemata have sometimes appeared to increase the pain.

CASE OF SOFTENING OF CEREBRUM AND CEREBELLUM: FATTY DEGENERATION OF HEART: TUBERCULAR ABSCESSES IN LUNGS.

Dr. J. D. Brown of Strood, Kent, relates the following case in the *Medical Gazette* for December 13, 1850.

Case. E. K., aged 39, had suffered for five years from occasional attacks of giddiness, pain in the head, and sickness, with numbness in one of the lower limbs. In December 1849 and January 1850, she laboured under symptoms of chronic inflammation of the brain, which appeared when she had scarcely recovered from a miscarriage. Her memory was impaired: there was paralysis of the left lower extremity, with weakness of the right leg; there was occasional rigidity of the muscles of the lower limbs. Emaciation progressed to a considerable extent. On the 7th June, she was attacked with bronchitis, but recovered. On the 19th, she was seized with a paroxysm of breathlessness, which returned several times; and she died in one of these paroxysms on the 29th. Throughout this day and the preceding night, she fancied she saw deceased persons. Her consciousness never failed, though she had a dull, vacant aspect. She said that there was a sensation of "squashing" in the back part of the head, and that, when erect, she felt as if about to fall forward.

Post-mortem Examination, forty-two hours after death. The skull was dense, and greatly thickened, particularly anteriorly and laterally. There were about three ounces of serum beneath the membranes; the ventricles contained but little fluid. The vessels of the *pia mater* were dilated: there was no disease in the arteries at the base of the brain. The cerebral convolutions were healthy, and moderately firm. There was white softening of the corpus callosum; the fornix and its crura were almost destroyed, and

the peduncles of the pineal gland were completely removed by ramollissement: the crura cerebri in the vicinity of the pons Varolii, the superior vermiform process, and the upper surface of the cerebellar hemispheres, were in a softened state. The medulla oblongata was sound. The heart presented an extreme degree of fatty degeneration. The lungs were emphysematous anteriorly, and contained numerous tubercular abscesses, filled with thin pus, and having no communication with the bronchi. The liver was large and fatty: the spleen extremely soft; and the kidneys also much softened.

COD-LIVER OIL IN JAIL-CACHEXIA.

Mr. Caleb Rose of Swaffham, Norfolk, has published, in the *Provincial Medical and Surgical Journal* for Nov. 27, 1850, some remarks on the scrofulous Cachexia, common among prisoners, which he believes to differ from the ordinary forms of scrofula. The symptoms of the disease are these: The man looks paler and thinner than usual; is very much depressed in spirits; has no appetite; sleeps badly; and has profuse night-sweats; there is slight diarrhœa; the pulse is quick, irritable, and feeble. The cervical glands are always more or less enlarged, and continue to enlarge very rapidly. In five years, three died in prison, two of very rapid phthisis, the third of tubercular peritonitis. The others who were seriously affected, were discharged before their proper time, and recovered speedily after their liberation. Those who suffered less were carried on to the end of their term of imprisonment by care and indulgence. Rather more than two years since, the use of Cod-liver oil was commenced, and with the best effects. The two men who first took the oil had the cervical glands much enlarged (in one of them suppurating) and, as they had still to remain some months longer in prison, it was thought that they must have been discharged before the end of their term; however, after taking the oil a month, they improved steadily, and eventually left the prison at their proper time, in as good health as when they entered it. Since these two cases, there have not been any so severe, as the oil has been administered in good time to those presenting indications of scrofula; they have gained flesh and strength, and their health has apparently been entirely restored.

ADMINISTRATION OF IRON IN FOOD.

M. Martens has lately read an essay before the Belgian Academy of Medicine, on Ferruginous Medicines. Among his conclusions, as published in the *Gazette Médicale de Paris* for 30th November, we find the following:

"Wheaten bread may be rendered much more nutritive" for chlorotic patients, "by adding a small quantity of sulphate of iron. In this way alone, it can be capable of forming a substitute for meat."

In the discussion, it was suggested that the same method of medication would be beneficial to patients recovering from acute diseases, especially when the system was not yet able to bear an animal diet. The idea is good: and would be easy of application.

SURGERY.

STATISTICS OF AMPUTATIONS OF LARGE LIMBS IN THE MASSACHUSETTS GENERAL HOSPITAL.

Dr. George Hayward, one of the surgeons to the Massachusetts General Hospital, has published in the *Boston Medical and Surgical Journal* for October 2, 1850, a valuable statistical account of all the Amputations of Large Limbs which have been performed in that institution from January 1822 to

January 1850. He gives two tables; the first comprising 67 cases, extending from January 1822 to January 1840; the second, including 74 cases, occurring from the latter period to January 1850. The following is a summary of the principal facts contained in the tables.

The entire number of patients was 141, on whom 146 operations were performed.[1] They may be thus arranged:

Seat of Operation.	Cause.		Rec.	Died.	Per Cent. Rec.	Per Cent. Died.
Above Knee, 69	Disease	49	40	9	81·6	18·4
	Injury	20	10	10	50·0	50·0
Below Knee, 50	Disease	24	23	1	95·8	4·2
	Injury	26	17	9	65.4	34·6
Above Elbow, 11	Disease	7	7	0	100·0	0 0
	Injury	4	3	1	75·0	25·0
Below Elbow, 11	Disease	6	6	0	100·0	0 0
	Injury	5	3	2	60·0	40·0

It thus appears, that 85 patients had their limbs removed in consequence of disease, of whom 10, or 11·76 per cent., died; and 56 in consequence of injury, of whom 22, or 39·3 per cent., died.

The ages of the patients were as follows:

Under 20 years of age,	26,	of whom 4	died.
Between 20 and 30	56,	" 11	died.
" 30 and 40	28,	" 10	died.
" 40 and 50	18,	" 5	died.
" 50 and 60	7,	" 1	died.
" 60 and 70	4,	" 1	died.
Over 70	2,	" 0	died.
	141		32

In the second table, it is stated whether each operation was performed by flap or by the circular method.

	By Flap.	Circular.
Above Knee	20	15
Below Knee	14	12
Above Elbow	2	5
Below Elbow	1	5
	37	37

The following are some of the remarks made by Dr. Hayward:

The result of amputations is much influenced, not only by the age and constitution of the patient, and the disease or injury for which the operation is performed, but also by the period at which it is done. In cases of chronic disease of the limbs, the operation is often deferred till it is too late. But an operation is often resorted to in recent injuries, earlier than it should be. If the injury be not so serious as to cause almost immediate death, reaction usually comes on, with proper management, in a few hours; and then, if an operation be necessary, it can be done with a much greater prospect of success than during the stage of prostration.

In rail-road accidents, there is a great tendency of the parts in the neighbourhood of the injury to slough after the operation. These accidents, when sufficiently severe to require amputation, are usually caused by a wheel of an

[1] In two of the cases of amputation above the knee, the other leg was also removed below; both died. In two, both legs were removed below the knee, and both patients recovered; in one case, one arm was removed above the elbow, and the other below: this patient also recovered.

engine or railway car passing over the limb, and generally producing a compound and comminated fracture of the worst kind. If the operation be performed in the immediate neighbourhood of the injury, the parts, however apparently sound at the time, will in most cases slough to a greater or less extent, so as to require the removal of the protruding portion of bone at a subsequent period. The operation should be done at a greater distance from the injury, than is usual in ordinary cases of accident. The condition of the parts resembles that which is described by military surgeons under the name of local asphyxia, as occurring from gun-shot wounds. It is a state of suspended animation, differing from death only in the fact, that the power of resisting decomposition is for a time retained; but the debilitating effect of an operation is very sure to destroy this.

Forty-eight of the patients inhaled some anæsthetic agent, generally sulphuric or chloric ether. It was at this hospital that these agents were first successfully employed in general operative surgery; and so satisfactory have been the results, that no operation of any importance is now performed there without the previous use of these means. No fatal effects have followed their administration, nor has any serious ill consequence ever ensued.

CASE OF FIBROUS POLYPUS, BY PROFESSOR SYME.

The following is a very interesting case, which appears to have been at first mistaken for some more malignant disease; probably for fungus hæmatodes. Yet we think that a longer period than three months would be necessary, to decide whether the unfavourable prognosis made in the first instance were correct or not. It is reported by Professor Syme in the *Edinburgh Monthly Journal* for November 1850.

Case. Lord —— consulted Mr. Syme on 29th June, 1850. He had, in consequence of a fall from horseback three years previously, sustained an injury of the nose, followed at different times by profuse bleeding, and complete obstruction of the nasal passages, with loss of smell and taste. Small portions of a polypous growth had been extracted; and repeated attempts at extraction were subsequently made, without success. On consultation, in London, it was decided that any operative interference was ineligible; that the case did not admit of any beneficial interference; and a certain and not remotely fatal termination of his complaint was predicted. On putting his finger into the pharynx, behind the soft palate, Mr. Syme recognized a polypous growth, extending from the nose backwards. On re-examination, both nostrils were found completely obstructed, both in inspiration and expiration. Nothing was felt in the left one: but, in the right, a small portion of polypus, similar to the ordinary mucous growth, was perceptible. Pressure on the pharyngeal tumour excited profuse bleeding, more from the nose than the throat. At all times, there was a copious distillation from the nostril of a slightly coloured fluid, which could only be removed by a wringing sort of action; and at night the bed-clothes were soiled by it. The morbid growth was speedily extracted, in one mass, through the nose, with the small polypus forceps introduced into the right nostril, aided by the fore and middle fingers of the left hand, inserted behind the soft palate. The operation was in every respect successful, and three months had passed, without any threatening of a relapse.

The polypus consisted principally of a reddish fibrous substance, extremely firm, except where it descended into the pharynx, where it was more friable. It agreed in all respects with the "fibrous polypus" of M. Dupuytren, viz., in firm consistence at the central or original part; in a tendency to soft degeneration at the circumference; in a great disposition to bleed; in a strong adhesion to the surface of the bone; and in the absence of any malignant action after its complete avulsion. The source of the complaint in Lord ———'s case probably existed long before the accident to which it was attributed.

FRACTURE OF THE OS CALCIS.

Dr. Uhde reports the following case in the *Mittheilungen über die in der chirurg. Klinik zu Braunschweig vorgekommenen Krankheiten und Operationen.*

Case. C. W., a journeyman carpenter, æt. 40, was admitted into hospital on the 20th November, 1844. Four hours before admission, he had fallen from a ladder a height of twenty feet, on a floor covered with sand as high as a shoe. His heels first came to the ground. He complained of very severe pain in the heel of the right foot. He said that, on reaching the ground, he heard a cracking sound in the foot; and asserted that he could neither walk with, nor extend it. There was also pain in the right calf. On the back of the foot, there was a hot, moderately raised swelling. On the lower surface, and on the heel, no change of form was observable. When the heel was grasped in one hand, and the foot pressed against it with the other, mobility and crepitation were readily perceived. The anterior third of the Os Calcis was fractured from above downwards. The examination gave extreme pain to the patient.

Rest and cold applications, with Dover's powder at night, were the only means employed till the 27th. On this day, a dextrine bandage was applied, which remained on until the 21st December. On the 27th of this month, the patient was enabled to leave the hospital on crutches; and in the middle of January 1845, he was first enabled to walk without lameness.

It could not be discovered whether the bone united by callus or by ligament. The right foot was for a year subject to swelling after exertion. The degree of weakness, which Metzger asserts to attend this affection, was, in May 1848, no longer observable.

DR. DOUGLAS MACLAGAN ON THE EXTIRPATION OF ERECTILE TUMOURS BY CAUTERY.

In his *Lectures on General Therapeutics*, Dr. Douglas Maclagan makes the following remarks: "These Erectile Tumours, which consist essentially of a congeries of enlarged blood-vessels, are commonly treated by ligature; but this causes a good deal of suffering, and often much constitutional irritation, before the strangulated mass finally separates. The method of applying the cautery is to pass a large red-hot surgical needle, which may be readily heated by a gas-flame, once or twice through the base of the tumour; and the object is to cause effusion of lymph, and thus to alter the structure of the tumour, and arrest its growth. There are other means of effecting this object; but I mention this as one which, though noticed in surgical works, has not received that attention which I think it deserves." [*Edin. Monthly Journal*, November 1850.]

DR D. MACLAGAN ON THE APPLICATION OF CAUSTIC TO THE HÆMORRHAGE FROM LEECH-BITES.

The following is the substance of some remarks made by Dr. D. Maclagan on the arresting of Hæmorrhage from Leech-Bites.

In cauterizing to arrest bleeding from a cavity, as a leech-bite, or the alveolus of the jaw, it is obviously essential that the caustic or cautery penetrate to the very bottom of the wound, which is probably the chief source of the hæmorrhage. In leech-bites in children, Dr. Maclagan has seen a piece of caustic cause much pain, and yet leave the bleeding artery as active as ever, simply because it was too thick to reach the bottom. He has often, therefore, had recourse to a simple and ingenious plan recommended by the late Dr. James Hunter; viz., to powder a piece of nitrate of silver, heat the point of a silver probe in a candle, and dip it into the powder; it thus becomes crusted with the nitrate, and forms a fine button of caustic, which

will easily reach the bottom of any such wound. When the bleeding has been stopped, we must beware of injudiciously meddling with the part: the occlusion of the divided vessels is as yet only temporary, and may be easily overcome. [*Edinburgh Monthly Journal of Medical Science*, November 1850.]

DISLOCATION OF THE FIFTH CERVICAL VERTEBRA: DEATH IN ONE HUNDRED AND TEN DAYS.

Case. On Dec. 16, 1848, Mr. I. Mansfield, a muscular, healthy man, æt. 28, of strictly temperate habits, fell backwards from a spring wagon in which he was riding slowly in an erect position, and struck the ground. He was found instantly, lying on his side, with his body and legs flexed, and complaining of great pain in the back of his neck. With some assistance, he walked to a house about four rods distant, and then lost all use of his lower extremities, and nearly all power of using his arms and hands. He had constant pain over the fifth and sixth cervical vertebræ, increased by the slightest motion of his head. The pain was greater in the left shoulder and arm than in the right.

From the seat of the pain, and the tumefaction, from the entire loss of sensibility below the fifth cervical vertebra, as well as from paralysis of the intercostal nerves, and respiration being performed only by the diaphragm, it was evident that the force of the fall was received on the spinous processes of the fifth and sixth cervical vertebræ. No evidence was discovered of fracture or displacement. There was considerable general excitement; tongue coated; pulse 100; skin hot; great thirst. Treatment: venesection; leeching; cathartics and blisters. The urine was high coloured, and exhaled a strong ammoniacal odour. The catheter was required twice daily.

January 10th. Pulse 90; appetite improving; unable to lie on either side; often declared he would much rather die than be turned; dreaded the slightest motion of his body or head; had almost constant pain in his shoulders and arms; and often, both night and day, screamed out for the attendants to move his arms, which mitigated the pain, but only for a short time.

February. As his position could not be changed, large ulcers formed. Tongue clean; pulse 90; appetite good: sleep much broken; ulcers dressed with antiseptics; totally unconscious of dejections, which took place generally once a day with great regularity. Took strychnia. Shocks from the galvanic battery seemed for awhile to arouse twitching and considerable feeling in his legs, arms, and hands; involuntary passage of urine.

March. Evidently more feeble; ulcerations rapidly extending, exposing the middle of the sacrum and left tuberosity of the ischium, discharging copiously very fœtid matter. The ulcers were dressed with cotton, dipped in dilute nitric acid. Tonics and stimulants were taken. Could now move his head slightly to either side. Abdomen tympanitic. Had slight and transient sensation on the skin of his feet, on the sides of his thorax, and on the skin.

April. Emaciated rapidly; high fever; pulse 105; appetite gone; powers failing; occasional vomiting; intense burning heat through the abdomen. 6th. The ulcers had laid bare the three upper lumbar vertebræ, and discharged freely. Pulse 140; copious perspiration; countenance cadaverous; cheeks and eyes sunk; suffered great pain; and seemed to breathe with pain; articulation distinct; mind clear and composed; aware of his critical situation. Inhaled a few drops of chloroform every few minutes, just enough to overcome the sensation of pain, and leave the mind unaffected. 7th. He died.

Autopsy eighteen hours after death; by Dr. Nye and Dr. J. B. Holder. Muscles thickened over lower cervical vertebræ. Fracture of the left bifurcation of the spinous process of the fifth cervical vertebra; the fifth cervical vertebra dislocated anteriorly full two-thirds of the diameter of the spinal canal; fracture of one half of left articular process of sixth cervical vertebra, leaving the right articular process entire, but covered with ossific deposit. A thin lamina of bone deposited around the middle of the body of the sixth

cervical vertebra, extending, at an angle of forty-five degrees, nearly to the anterior inferior edge of the fifth, which overhung it. The lateral articular processes firmly united by bony union. Fracture of one-half of the right articular process of the sixth, allowed the right side of the fifth to project forwards farther than the left side. Short spiculæ of bone, turning inwards on the medulla, from the superior edge of the posterior part of the sixth cervical, and from the inferior edge of the fifth. The cavity of the medulla was diminished two-thirds of its diameter, and contained large clots of coagulable lymph external to the membranes. Medulla much softened for the space of one and a half inches; and membranes soft and thickened.

It is a well-known fact, that displacements of the fifth cervical vertebra are generally suddenly fatal. Sir A. Cooper says, the patients die in from three to seven days, according as the injury is seated in the fifth, sixth, or seventh cervical vertebra.

The reporter (Dr. James M. Nye) asks, may we not reasonably expect that, in cases of spinal displacements, if not in fractures (if the diagnosis is correctly made out), some means may be discovered for their successful reduction? Etherization, too, would probably, he adds, be auxiliary to such means, as in other surgical operations. [*Boston Med. and Surg. Journal*, 1849.]

OBSTETRICS.

AMPUTATION OF THE ARM NOT NECESSARY, WHEN THIS LIMB PROTRUDES IN SHOULDER-PRESENTATIONS.

M. Chailly-Honoré has published a valuable paper, on the above subject, in the *Bulletin Général de Thérapeutique* for July 15, 1850. We give a slightly abridged translation, with copies of the wood-cuts by which the memoir is illustrated.

The protrusion of the arm is not a complication of shoulder presentations: it is an epiphenomenon, which never affords any obstacle to delivery. The accoucheur is, therefore, never authorised to amputate this limb; and its presence does not impede the operation of turning. This proposition is supported by the following case, which lately occurred under M. Marrotte, in the Hôpital Ste. Marguérite.

Case. A woman named D., entered that establishment to be confined. The membranes had been ruptured four or five hours before the *interne* examined her. Discovering a presentation of the right-arm, he attempted to turn, but without success. M. Chailly-Honoré, being called to the case by M. Marrotte, found the arm very swollen, and livid; he fastened a string to it, which he caused to be held loosely on the outside, then turned the child, and completed delivery in a few minutes. Although fifteen hours had elapsed since the rupture of the membranes, the child was alive.

Although a contrary opinion has been maintained, it is certain, that the protruded arm can never be an obstacle to turning: and when (which seldom happens) this cannot be effected, the impediment does not arise from the protrusion of the limb; on the contrary, it facilitates the diagnosis, permits the position of the child to be ascertained, and renders extraction more easy, after the feet have been brought down. The real obstacle has been proved to exist in the energetic action of the uterus.

In some cases, nature completes the labour by *spontaneous evolution*. This, which is much better known than spontaneous version, is accomplished in shoulder presentations, almost exactly under the same laws as all other cases of spontaneous expulsion; and the analogy is more perfect, as the infant approaches to the full size. At the same time, this proceeding becomes more difficult, and more dangerous for the mother and child. To illustrate this form of delivery, we may suppose a case of presentation of the right shoulder, the position being the *right cephalo-iliac*.

Immediately after the rupture of the membranes, the parts are diminished in volume. This period is analogous to that of flexion in presentation of the vertex, and to deflexion in that of the face. The shoulder then gradually passes into the pelvis: and, as it does so, the fœtus, by a rotary movement, places the head on the horizontal branch of the left pubic bone, and the shoulder under the pubic arch. The arm then appears outside the vulva: but sometimes it presents before this period. The flank of the fœtus is now pushed into the pelvic cavity, gliding over the right sacro-iliac symphysis, while the shoulder remains immoveable. The pelvic extremity follows the same direction as the side. At last, the perinæum bulges, and the lateral and upper parts of the chest, the hip, and the lower limb, appear at the anterior commissure. As these parts are disengaged, the head and left arm descend, and are very soon expelled, generally without any rotation of the head. In fact, the maternal parts have just been too much distended. (See Figs. 1, 2, 3, 4.)

Fig. 1. Spontaneous evolution: presentation of arm.

Fig. 2. Spontaneous evolution.

Fig. 3. Spontaneous evolution.

Fig. 4. Spontaneous evolution.

When the fœtus looks anteriorly, expulsion occurs in the same manner; but it is here more easy to observe the regularity with which rotation is accomplished, by which, in all presentations, the posterior part of the fœtus must be turned forward. As the fœtus escapes from the vulva, it performs a movement of torsion, which brings its back to the front part of the mother. (Fig. 5.) M. Paul Dubois was the first to determine the existence of this phenomenon. A number of cases of this kind have been reported by MM. Chailly-Honoré, Velpeau, and Denman.

Fig. 5. Spontaneous rotation.

In the majority of labours at the full period, this expulsion cannot be effected, when the pelvis and the fœtus are of normal size: the mother will generally perish before labour is completed, if not assisted by art. The dangers to which both mother and child are exposed are easily explained. The length of the labour, and the pressure to which the fœtus is subjected, almost always prove fatal to it; and the forced passage of the child bruises and lacerates, more or less, the maternal organs. Moreover, the horrible and continued pain attendant on such a delivery, produces a constitutional shock from which the woman cannot recover. The unfavourable prognosis attending on this form of labour militates against the practice of Denman, who left most of these cases to nature. In 137 cases of spontaneous evolution, collected by M. Velpeau, 125 infants died. Many women have perished before delivery was completed, or soon after; and many have continued to live, in a state more deplorable than death itself. Before the full period of gestation, spontaneous evolution may be safe, both for mother and child, especially if the pelvis be capacious, the uterine contractions very powerful, the fœtus small, and the parts offering little resistance. As may be supposed, it is very difficult in primiparæ.

As, then, spontaneous evolution in these cases is only effected under exceptional circumstances, and almost always compromises the life of the child, and frequently that of the mother, the *accoucheur must never be content with being a mere spectator in such cases.* He must render his aid before the energetic action of the uterus has placed insurmountable obstacles in the way of turning. Should traction be exerted on the arm? This can produce no good result: even when the infant is very small, it would be fatal to it; and would, moreover, endanger the integrity of the maternal organs. Must the arm be replaced? The resistance of the uterus renders this impossible; and the attempts to overcome the action of the uterus are dangerous to the mother: besides, the reduction would be useless. On the contrary, it is an advantage to have the arm disengaged: it facilitates, as has been already said, the extraction of the trunk.

Those authors who have advised amputation of the arm, found their observations on the alleged facility with which turning has been effected after this operation has been performed. The following two cases will show reasons for entertaining a contrary opinion.

Case I. Dr. Lebrun, of Argenteuil, called M. Chailly-Honoré to deliver a woman. Two accoucheurs had previously for two days made repeated and unsuccessful attempts at turning. This was now effected in a quarter of an hour, without pain to the patient, and with great facility; the explanation of which was the following. As long as the woman preserved her strength, the uterus had been able to react against the hands of the operators; but at last she was in such a state of exhaustion, that the uterus was relaxed. The approach of death had brought on such a complete state of collapse, that the hand could be passed into the uterus; whereas, a few hours before, this was impossible. *This is the whole explanation.* In fact, supposing that the arm had been removed, the ease with which the hand was introduced, would certainly have been attributed to this operation. It is such cases as this, which, being misinterpreted, have led into error.

Case II. An obstetric practitioner was called to assist in turning in a similar case. Finding it difficult to introduce the hand, he amputated the child's arm, without examining whether it were alive or not. He was at least not more successful in his attempts after the operation; for, instead of a foot, the other arm, lying near the orifice, was brought down. M. Chailly-Honoré was now called; and proceeded to deliver the woman by placing her on her knees and elbows. This position, for a knowledge of which he is indebted to M. Kilian, of Bonn, permits the feet to be reached with the greatest ease (see Fig. 6). When the woman is in this position, the hand, unless the

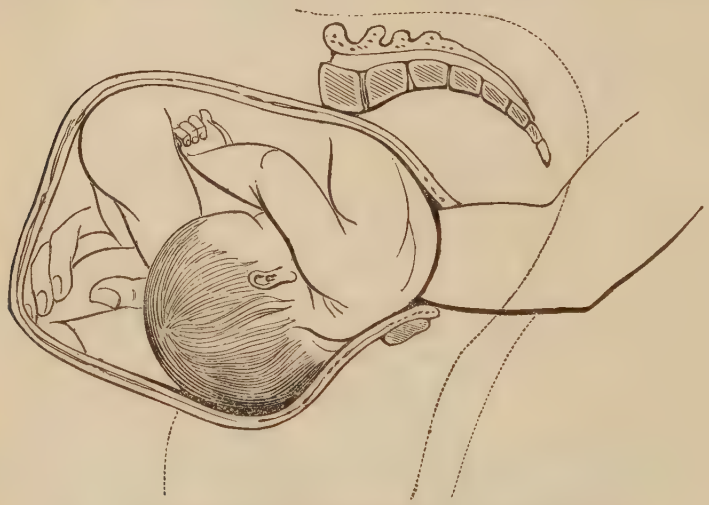

Fig. 7. Introduction of the hand, the patient being on her knees and elbows.

action of the uterus be too energetic, passes directly towards the fundus of the organ. But when the woman is on her back, the hand and arm have to be bent forwards in order to find the feet; and thus the attitude compromises the success of the operation. In this case, with the change of position of he patient, turning was easily accomplished, the second arm still remaining outside the vagina. If it had been amputated, the success would have been ascribed to this operation.

M. Chailly-Honoré has observed many similar instances; and he has been induced now to notice this subject at some length, as some of the cases have come under his notice since the publication of his work.

Far from impeding the operator, the arm even renders his manipulations

more simple and easy. It can scarcely be supposed to be otherwise; for the arm, however swollen, is not large enough to prevent the hand from passing into the uterine orifice. The only cause which can render turning impossible, is uterine contraction: and this is always more or less energetic when the arm is disengaged; being, in fact, the cause of the latter phenomenon.

PROFESSOR SIMPSON ON PUERPERAL AND SURGICAL FEVER.

The following is an abridgment of a paper published by Professor J. Y. Simpson, in the *Edinburgh Monthly Journal of Medical Science* for November 1850.

Nearly three thousand mothers die in child-bed, every year, in England and Wales, the great majority from Puerperal Fever.[1] Many subjects of surgical operations die, however well the operations may be performed. Among every hundred cases of amputation of the limbs, about thirty die. In four thousand nine hundred and thirty-seven cases of these amputations, collated by Dr. Fenwick,[2] one thousand five hundred and sixty-five died, *i.e.*, nearly one in three. These deaths after operations depend, in a large proportion of cases, on a combined febrile and inflammatory morbid state, generally, if not specifically, the same as Puerperal Fever, and which may as correctly be denominated "Surgical Fever" as the other is denominated "Puerperal Fever".

A strong analogy, if not an identity, between these two forms of disease, is indicated—1. By the anatomical conditions and constitutional peculiarities of those who are the subjects of them. 2. By the pathological nature of the attendant Fever. 3. By the morbid lesions respectively left by each disease. And 4. By the symptoms which accompany each affection.

1. Analogy in the Anatomical Conditions of the Subjects of Puerperal and Surgical Fever. In the surgical patient, we have a solution of continuity, on the exterior of the body, with numerous arteries and veins opening on the free surface of the wound. In the puerperal patient, we have a solution of continuity on the whole internal surface of the womb, made by the separation of the placenta, and the exfoliation of the decidua or mucous membrane of the uterus; this wound has, opening on its free surface, the mouths of numerous arteries and veins; and it is repaired by the exudation of serum, lymph, and pus, (lochial discharge), and by the formation of a new layer of mucous membrane. Both classes of patients are liable to present the symptoms of shock or collapse, and a subsequent limited febrile reaction,—the traumatic fever of the surgeon, the so-called milk fever of the obstetrician. In both instances, the secretions of the wounds may morbidly alter; or they may become the seat of an excess of inflammation or ulceration; or of phlebitic suppuration and its consequences. In both cases, air may enter by the open mouths of the veins; both may, though very rarely, be followed by delirium, tetanus, and other nervous complications; and in like manner, but much more frequently, they are apt to be followed by that form of combined febrile and inflammatory action which we term Surgical Fever in the surgical patient, and Puerperal Fever in the puerperal patient.

2. Analogy in the Pathological Nature of Puerperal and Surgical Fever. Two opinions were formerly held as to the nature of Puerperal Fever: 1. That it was an idiopathic or putrid fever, *sui generis*; 2. That the disease was essentially a local inflammation, of which the fever was merely a consequence, and that the appropriate treatment was by venesection and active antiphlogistics. The first of the doctrines was generally abandoned

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[1] Fifth Report of the Registrar-General, p. 380. Dr. Ferguson's "Essays on the Most Important Diseases of Women", p. 1. Kiwisch, in British and Foreign Review, vol. xiii, p. 3.

[2] Edinburgh Monthly Journal, 1847, p. 238.

as pathological anatomy advanced, because local inflammatory lesions, discovered after death in the uterus, peritoneum, and chest, were too frequent and too decided to be explained by the doctrine of a previously existing fever alone. Again, the idea of the disease being essentially a local inflammation, has been disproved, from its being found, 1. That there is no general uniform relation between the intensity of the local inflammatory lesions and the attendant fever; 2. That the supposed cause, simple peritonitis or metritis, may exist without exciting the symptoms of Puerperal Fever; and 3. That true and fatal Puerperal Fever may occur, without leaving on the dead body any traces of the local inflammation which had been considered the origin of the disease. Thus, whatever be the site of the local inflammation to which Puerperal Fever has been attributed, cases of genuine and fatal Puerperal Fever have been observed, in which each of these supposed causes has been absent.

Some authors, maintaining the disease to be a symptomatic fever, hold that the inflammation on which it depends may be seated in different parts in different cases, and in different epidemics, originating in one case, in metritis, in another, in peritonitis, and so on.[1] But occasionally, though very rarely, no inflammatory lesions whatever are found.[2] Hence most of our best pathologists have rejected the idea of Puerperal Fever being either a fever *sui generis*, or symptomatic of a local inflammation, and have been inclined more and more to ascribe the disease to a *toxæmia*, or morbid state of the blood. The injection of pus, and other morbid matters, into the blood of the lower animals, produces symptoms during life, and lesions found on the dead body, very analogous to those of Puerperal Fever. Similar effects are produced by the mixture of pus with the blood in the human subject, in cases of phlebitis, etc. Facilities for the access of pus to the circulation, after parturition, exist in the orifices of the utero-placental veins, in the inoculation of morbid and contagious matters upon the abraded surface of the vagina, and in the transmission, by continuity, of accidental inflammations from the lining membrane of the maternal passages, through the open orifices of the veins, along the lining membrane of these vessels. Under the view that Puerperal Fever is of toxæmic origin, we can more easily explain the relation of its two elements, viz., the febrile action, and the internal inflammation. For we see that the fever is not itself the cause of the attendant inflammations, nor these inflammations the cause of the fever: but that both the fever and the inflammations are the simultaneous effects of one common cause, namely, the vitiated condition of the general circulating fluid. The same doctrine enables us also to see how, in one epidemic, the febrile, and in another, the inflammatory element, may be more prominent.

These views of the pathology of Puerperal Fever are borne out by what we see in Surgical Fever and its inflammatory results, among the internal viscera of the body; for no pathologist has ventured to maintain, that the pleurisy or peritonitis, which we often see in the bodies of patients who have died of Surgical Fever, is the consequence of that fever; or that the fever itself is a consequence of these local inflammations. These local phenomena are no longer held to be explicable by the doctrine of sympathy or metastasis; and few now dissent from the idea that we are to look for their origin, and for the origin of the attendant fever, in some diseased condition of the blood. Whether this consists in the presence of some one or more of the elements of purulent matter alone; or whether other animal secretions may be its common or occasional cause, and its effects may not be regulated by differences in the diseased material which is present in the circulation, are questions which more advanced research may yet determine.

III. Analogy in the Internal Pathological Lesions left by Puerperal and Surgical Fever. Both are liable to leave upon the dead subject

[1] Tonnelle. Archiv. Gén. de Méd., vol. xxii, p. 350.

[2] Locock, in Library of Medicine, Art. "Puerperal Fever", vol. i, p. 351.

evidence of recent acute inflammation, generally characterized by an unusual tendency to the effusion of loose coagulable lymph and pus. Thus Dr. Chevers found, in 134 out of 153 cases fatal after surgical operations in Guy's Hospital, the immediate cause of death to have been acute inflammation in one or more of the internal organs; and, no doubt, in all of them, the usual symptoms of Surgical Fever were more or less perfectly marked during the last days of life. Similar results have been observed in cases of death from Puerperal Fever, as illustrated by the tables of Dugès and Tonnellé. The internal inflammation, in the same case, generally affects two or more different, sometimes very distant viscera, either simultaneously or in succession. The principal seats of inflammation are often far removed from that of the original lesion. Thus, pleurisy is very frequently the result both of a surgical operation and of Puerperal Fever, and pneumonia is especially frequent after surgical operations.[1] In obstetric cases, the uterus, uterine appendages, and peritoneum are, however, the most constant seat of the internal inflammation, just as all kinds of wounds of the pelvic and generative organs are particularly liable to be followed by peritonitis, when they give rise to Surgical Fever. In Midwifery cases, not only is the uterus, the seat of the original wound, liable to inflame, but the morbid action readily extends, by continuity of tissue, to its appendages and to the peritoneum. The pelvic viscera, moreover, have been the immediate seat of injury during parturition, and the inflammation is prone to attack any weak or injured part. Might we, in any case, regulate in any degree the principal site of the secondary inflammatory effusions in Puerperal or Surgical Fever, by lowering the vitality of a selected portion of the surface of the body?

IV. Analogy in the Symptoms of Puerperal and Surgical Fever. The type and severity both of Surgical and of Puerperal Fever are very variable. The varieties of the latter are described as the inflammatory, the bilious, the gastro-enteric, the nervous, etc. But when either disease is fully marked, the symptoms are sufficiently striking and similar: as rigors, a pulse varying in strength but always rapid, an altered hue of the surface, which is frequently darker, or almost icteric; the skin hot and dry, or bathed in perspiration, or these states alternating, without any material crisis in the febrile action: local pains, and functional derangements in the parts which are the seat of the internal inflammatory effusions, while the local symptoms of the local inflammations are often very masked and latent; anxiety and general prostration, adynamia; very frequently nausea and vomiting, occasionally diarrhœa; and latterly, laboured or hurried respiration; sometimes sudden swellings and effusions of the joints and subcutaneous tissue; and often at last rapid sinking, with or without delirium. There is no disease in which it is so difficult to assign pathognomonic phenomena as in Puerperal or in Surgical Fever. But whoever has seen much of the disease in one class of patients, has no difficulty in identifying it in the other class.

The discovery of any measure for the prevention or cure of Surgical and Puerperal Fever would save numerous lives, and form a most important era in the march of professional discovery. We already know various conditions capable both of increasing and decreasing the intensity of this affection. The disease is more common and severe in towns than in the country,[1] in hospitals than in private practice, in crowded wards than in those where the patients are few and the supply of fresh air ample. In some epidemic states, in some localities, and in some states of the economy, it is much more fre-

[1] Erichsen, Professor, in Med. Chir. Trans., vol. xxvi. Dupuytren, Révue Médicale, 1826, vol. iv, p. 418. Addison, Dr. Thomas, in Guy's Hospital Reports, 1843, p. 83.

[2] Out of a town population of about 1,800,000, 3195 died in child-bed in four years; and in about the same amount of rural population, there died only 1806 mothers. Mr. Farr, in Registrar-General's Fifth Report, p. 400.

quent than in others. Patients suffering under internal organic diseases, particularly of the abdominal viscera, and under certain functional derangements of the kidney, and perhaps of other organs, are specially liable to be attacked with this consecutive fever and inflammation. In addition to the common antiphlogistic remedies, special prophylactic measures have been proposed when Puerperal Fever is epidemic, as large and repeated doses of quinine, chlorate of potash, etc., before or immediately after delivery. This is a line of inquiry deserving further careful investigation. Some surgeons subject their patients to previous regiminal and medicinal preparations, but the exact power and propriety of these and other measures are not precisely ascertained. With regard to Puerperal Fever, few practitioners in this country have any doubt of the propriety and efficacy of those measures, which are calculated to prevent the medical practitioner or the nurse being the unhappy medium of carrying the contagion of the disease from one puerperal patient to another. There is amply sufficient proof that puerperal women may be inoculated with a *materies morbi* capable of exciting Puerperal Fever; that this *materies morbi* may be introduced into the dilated and abraded lining membrane of the maternal passages during delivery, by the fingers of the attendants; that the *materies morbi* most capable of being thus inoculated, and of generating the disease, seems to be the inflammatory products effused upon the serous or mucous surfaces of females who are suffering under Puerperal Fever, or who have died of it; and lastly, that other inflammatory effusions, when inoculated into the puerperal female, appear to have sometimes the same effect, such as the effusion into tissues, which are the seat of an asthenic, erysipelatous, or gangrenous type of inflammation. Every available caution should be taken against propagating the disease in this manner. The omission of these precautions, it is sincerely believed, has proved the cause of many deaths in child-bed, and continues still to do so, particularly on the continent of Europe. In the large hospital of Vienna, out of 21,120 women delivered from 1840 to 1846, 2260 died, or about 1 in every 10 mothers delivered, perished chiefly from Puerperal Fever. Latterly, this mortality has diminished so far, that in 1848, not above 1 in 74 died. This great change was effected by the adoption of means to prevent the contagion being transferred by the medical attendants and students, the mortality diminishing immensely and immediately from the time (May 1847), that the assistant-physician, Dr Semmelweis, prevented students from touching parts at the autopsies, and directed all of them to wash their hands in a solution of chlorine before and after every vaginal examination.[1] Was not the want of a due knowledge of the communicability of Puerperal Fever the cause immediately leading to these numerous maternal deaths? Were these mothers not sacrificed merely to medical prejudice, in the form of a total disbelief, on the part of our own continental brethren, in the contagious communicability of Puerperal Fever? And lastly, if Puerperal Fever be occasionally produced by inoculation, may not Surgical Fever be sometimes communicated in the same way?

The Dublin correspondent of the *Medical Times* for December 14th, makes the following remarks, in referring to Dr. Simpson's memoir:

The idea of the identity of Puerperal and Surgical Fever has been long held in Dublin, and is by no means new. The view was well put forward not long since, by Dr. Henry Kennedy, at the Dublin Obstetrical Society. The uterus Kennedy looked on, after delivery, as a large open wound; amputation, so to speak, of the mass of the placenta having taken place. At particular seasons, Puerperal Fever is more fatal. There is a large group of diseases, he thinks, to which it belongs, typhus, the exanthemata, diffuse

[1] Wieger, in Rev. Medico-Chir., vol. vi, p. 136. Routh, in Med. Chir. Trans., vol. xxxii, p. 27.

phlegmon, erysipelas, dissection wounds, etc. Kennedy, with Fergusson, is of opinion that the disease is rendered fatal by the formation of a poison in the system of the patient herself. He thinks the disease *then* becomes contagious, and may be carried by a third party, as a student, or midwife. In his own practice, a woman in perfect health was confined in a room adjoining one where there was a bad case of typhus. She suddenly got Puerperal Fever, and died. Kennedy has also seen the dark mulbery *vibices*, or spots of typhus, in Puerperal Fever. The fever is the chief thing to contend against in the treatment, not the peritonitis, he says, which is only secondary: he is accordingly against the system of bleeding; and mercury, where the system is deeply poisoned, he thinks quite as inadmissible.]

SUDDEN DEATH SEVEN HOURS AFTER DELIVERY: AIR FOUND IN THE HEART.

Professor Samuel Berry, of Queen's College, Birmingham, relates, in the *Provincial Medical and Surgical Journal* for November 27th, 1850, the case of a woman who died suddenly after delivery, and in whom, on post-mortem examination, air was found in the heart. There is by no means sufficient proof that the entrance of air into the veins was the cause of death; as may be inferred from a comparison of the case with the views advanced by Dr. Cormack, in this Journal, for October 1850, and with the experiments and observations of Amussat, Wattmann, Erichsen, and others. We give the case, however, as it is possessed of some interest.

Case. A woman, primipara, aged 22, had a favourable delivery; the placenta was expelled, with little loss of blood, at 20 minutes past 7 p.m. She appeared to be going on well until 1 a.m. the following morning, when she became affected with difficulty of breathing and faintness, and expired before the arrival of her medical attendant, Mr. Dyer, about an hour afterwards. On a *post-mortem* examination, performed the next day, the lungs were found congested, and there was air in the heart, which was of the size of a male heart, and apparently distended. Upon making an incision into it, a gush of air escaped, and the organ became flaccid: no blood was found in its cavities. The uterus was found empty, and the vessels, where the placenta had been attached, were patulous. The vagina contained, at its upper part, a moderately-sized clot of blood. Mr. Berry gives the following explanation of the case: The uterus, after the removal of the placenta, contained a clot of blood, which, by the contraction of the uterus, was forced into the vagina; when the uterus was relaxed, air was drawn into the cavity, the clot on the vagina prevented the air from passing out of the uterus, and the mouths of the uterine veins being patulous, it was forced into them, and then passed into the general venous circulation. The entrance of the air was gradual, he believes, and therefore occupied some time before it reached the heart in sufficient quantity to give rise to those symptoms of obstructed respiration which soon terminated in death.

KEY-TSI-SING, A JAPANESE REMEDY FOR STERILITY AND SUPPRESSED CATAMENIA.

In our number for November last, p. 1083, we noticed a Japanese remedy, introduced (through the *Lancet*) to the notice of British practitioners by Dr. E. Williams. We find a second eulogy of the medicine by Dr. Williams in the *Medical Times* of December 21st, supported by the details of a case of suppressed catamenia, in the practice of Dr. White of the Winchester County Hospital. As Dr. E. Williams states, that forty-seven practitioners have testified to him in favour of the beneficial effects of the drug in suppressed catamenia, we think the present publication of a single case ill-advised. When the results of the trials of the forty-seven practitioners referred to are laid *in extenso* before the profession, we will state the results to our readers.

THE HOSPITALS OF LONDON.

BY DR. CORMACK AND DR. SEMPLE, ASSISTED BY NUMEROUS REPORTERS.

INTRODUCTORY REMARKS.

UNDER this head we propose, from time to time, to offer a series of facts and observations regarding the London Hospitals. Our object will be, not so much to give details of individual cases (although these, if interesting, will not be excluded), as to furnish an outline of the statistics of the Institutions, of the practice of their different physicians and surgeons, and of the system of instruction pursued by each of them.

The paramount importance of clinical instruction has always been insisted upon in this journal; and we are happy to observe that the Court of Examiners in the Society of Apothecaries have, in their last curriculum, (published in the beginning of 1850,) made an attempt to place this branch of medical tuition on its proper footing; and no one who is acquainted with the excellencies and defects of our present system of medical instruction, can doubt that the Court of Examiners have exercised a sound judgment in this particular. Our only regret is, that the other medical corporations, especially the University of London and the Royal College of Surgeons of England, have not yet thought it necessary to follow so good an example.

With the view of aiding, as much as possible, the efforts of those who are endeavouring to promote a better system of clinical instruction, we propose to state, as far as our information extends, the various methods pursued of the London Schools of Medicine. On the present occasion, we present to our readers some particulars connected with the mode of clinical teaching adopted at GUY'S and at UNIVERSITY COLLEGE HOSPITALS: which we have no hesitation in stating are both admirably regulated Medical Schools. We also give a short notice of the NORTH LONDON EYE INFIRMARY.

We give these Hospitals priority only from adventitious circumstances. It is no part of our plan to advocate the interests of any particular Schools, or any particular set of Teachers; we are anxious to do justice TO ALL; and, as far as lies in our power, to make the stores of medical knowledge contained in our great hospitals, available to the medical community. Deeply sensible of the liberality which characterises the Hospital physicians and surgeons of London, we acknowledge with gratitude the zeal which they have evinced in placing within our power the means of communicating a vast mass of useful information: and it is our earnest desire, in return for the confidence reposed in us, to make the department devoted to the HOSPITALS OF LONDON one of the most useful features in this Journal.

We are by no means insensible of the valuable services rendered to Clinical Medicine by our weekly contemporaries; and our readers will perceive that it is no part of our plan to supersede their truly excellent reports. To the *Lancet*, special praise is due for having commenced effectively these valuable communications.

GUY'S HOSPITAL.

Guy's Hospital in the Borough of Southwark was founded at the sole cost of Thomas Guy in the year 1727. The hospital school, which was at one time connected with that of St. Thomas's Hospital, has now been separated from it for many years, and is carried on by a distinct and complete staff of lecturers. The number of beds amounts at present to 580, a considerable increase on the number originally determined upon by Guy. This extension

of the hospital was the result of a munificent bequest by the late Mr. Hunt, who left a sum of £200,000, to be devoted to the purposes of the institution.

The large number of patients constantly in the hospital affords great opportunities and advantages, for the instruction of pupils in the practice of medicine, surgery, and midwifery. The arrangements for carrying out this object are as follows. The general service of the wards is conducted on the ordinary plan, each physician being attended by four clinical clerks, (students of the second or third year) who report the cases coming under treatment, and each surgeon being followed by four dressers, and four surgical reporters for the like purpose. During the six winter months of the year, from October to the end of March, the medical and surgical *clinical wards* are open ; forty beds are devoted to this service for the physicians, containing twenty-two male and eighteen female patients. The six months are equally divided, each physician taking the wards for two months, during which time he lectures once a week on the cases admitted. Clerks for the clinical wards are selected from among the most assiduous pupils of the third year, and the same rule is adhered to in the selection of dressers. The surgical clinical cases are distributed, and selected from cases in the surgical wards ; the clinical surgeon for the time being having the liberty of selecting such as he may choose from all the cases admitted. For these cases there are special reporters, and the surgeon who takes the clinical duty for two months, lectures once a week during that period on the cases requiring notice. In this way it will be observed, that while arrangement is made for reporting all the cases contained in the hospital, the clinical wards and other selected cases supply matter for clinical lectures during the winter session. One great advantage of these arrangements, consists in the means they afford of obtaining a knowledge of the capabilities of students as reporters, while labouring in the general wards, so that the care of the selected cases devolves on those who are not only the best fitted to report, but also to have the care of patients suffering from the severer forms of disease. The Eye Wards, male and female, containing thirty beds, under the care of the ophthalmic surgeon, are open all the year round, clinical lectures being delivered during the summer.

Clinical instruction is also given by the physician-accoucheurs—Dr. Lever and Dr. Oldham—who have twenty beds in the hospital for the reception of women suffering from diseases of the uterus. Two clinical clerks, selected for the most part from students of the third year, attend upon these cases and also assist the physician-accoucheur with the out-patients of this department, which average 160 each week.

For the purpose of teaching practical midwifery, a house has been appointed in the hospital for the residence of three students, who take office under the following conditions. There is a senior, second, and third ; the youngest is in attendance for *a fortnight*, during which time he attends all the ordinary cases which occur, amounting to from twenty-five to thirty cases. Having performed this duty satisfactorily, he is eligible for the appointment as second, who has allotted to him such cases as from circumstances may be known to present abnormal conditions : this duty he performs for a month. If his attendance has been satisfactory, he is chosen to the office of senior, whose privilege it is, under the sanction and in the presence of one of the physicians, to perform the operations of turning, applying the forceps, etc., or if capable, he is permitted to undertake, with their sanction and in their presence, any required operation. He resides for two months, and is responsible for the regularity of the others, and assists them in cases requiring particular attention. The cases are attended at their own homes, books being kept in which the names of women are entered, with the time at which they expect to be confined, and such other particulars as may be thought necessary. The annual number attended is about 1400.

During the time the clinical wards are closed, a clinical lecture is given once a week by one of the three assistant-physicians, Dr. Hughes, Dr. G. O.

Rees, and Dr. Golding Bird. These lectures include the subject of Diseases of Children, a children's ward containing beds being open all the year round, under the care of one of the assistant-physicians.

Clinical lectures are thus delivered during the whole year on Medicine, Surgery, Ophthalmic Surgery, and the Diseases of Women and Children. It may be stated, that in order to secure the undivided attention of the physician for the clinical wards in the winter session, each physician, on taking that duty for two months as before-mentioned, deputes his assistant-physician to undertake the service of the general wards.

The general management of this plan of instruction is under the superintendence of a clinical censor, who keeps lists of the clerks to each medical and surgical officer, and a register of those who, from standing and capability, are fitted for the offices of reporters or dressers. Further particulars regarding Guy's Hospital (to secure accuracy), we defer to a future occasion.

UNIVERSITY COLLEGE HOSPITAL.

University College has taken the initiative in clinical teaching, as in many other branches of education. Eleven years ago, for the first time in any English medical school, distinct professors were appointed, whose special duties were to superintend the practical training of students at the bed-side of the sick. In common with all the British schools, clinical instruction had been previously given by the several physicians and surgeons of the hospital; but by the institution of distinct professorships, the amount and efficiency of this teaching was extended. The clinical duties of the medical officers were not abolished, but the old system was developed and perfected.

Dr. John Taylor (now of Huddersfield) was the first Professor of Clinical Medicine, and Mr. Liston the first Professor of Clinical Surgery in University College. Dr. Walshe and Dr. Parkes have been, successively, the successors to Dr. Taylor; and Mr. Quain now holds the chair once filled by the greatest operator of modern times.

We have already said, that the clinical duties of the physicians and surgeons were not superseded by the creation of special clinical professors. Thus, for example, Dr. Walshe, Dr. Garrod, and Dr. Murphy, the three other physicians to the hospital, are still termed in the Prospectus, *Clinical* Professors, and are expected to give instruction at the bed-side; so also Mr. Erichsen is Clinical Professor of Surgery. But these professors are not expected to bestow the same amount of labour on their pupils as the special clinical professors. On Dr. Parkes devolve the duties of practically teaching the stethoscope, the art of percussion, the method of examining the urine, etc., in addition to pointing out the general phenomena of each case; and Mr. Quain's duties embrace corresponding practical instruction in surgery. In addition to the officers above mentioned, the Council have recently created a chair of Ophthalmic Surgery, and this is now occupied by Mr. Wharton Jones. Courses of instruction in Dental Surgery have been for some years given by Mr. Durancé George.

The Hospital contains 120 beds, of which about one-third are devoted to surgical cases. Into the medical side, the worst cases only are admitted, out of the great number always applying for admission; so that the examples of disease presented are of extraordinary severity as compared with the average of the cases in the large hospitals.

Confining ourselves on this occasion to the medical side, we find that the usual mode of examining patients, and dictating in a loud voice to clinical clerks,[1] has been adopted in this hospital ever since it was opened. This plan, which originated in the Edinburgh School, can never be superseded, and of itself is of great use, as placing before every student phenomena with whose

[1] The Clinical Clerks are students who have distinguished themselves for intelligence, industry, and good character.

characteristics he may subsequently make himself acquainted by personal investigation of the patient. In University College Hospital, the cases are taken with extreme minuteness and care.

The following is the plan which Dr. Parkes, the present clinical professor, has used since his appointment :[1]

A. GENERAL PREVIOUS HISTORY.

1. *Name*—age—place of birth—place of usual residence—how long in London—general health of parents, brothers, sisters, and other relations—mode of death of ditto.
2. *Conformation and appearance when in state of health*—height—weight—make of body (tall—slight—short—square, etc.)—colour of hair and eyes—temperament—habitual state of mind—cheerful—melancholy, etc.
3. *Trade*—sedentary or active—in or out of doors—how many work-hours per diem.
4. *General mode of life*—lived well or badly—amount of meat and fresh vegetables—temperate or not—amount of liquor and of what kind—tobacco—clothing—personal cleanness as to baths, etc.—exposure to weather—how much sleep—number of persons in same room—married or single—how many children—place of abode—humid, dry, well, or badly drained, etc.
5. *Previous health in general terms*—good—bad, etc.

If a female—catamenia, at what age appeared first—second appearance—when quite regular—regular or not since—scanty or profuse—how many children or abortions—labours easy or the reverse—any flooding—suckled her own children—when catamenia ceased.

6. *Previous Diseases*—(The patient should be first asked to enumerate them, afterwards special inquiry should be made as to the following, viz.)

Small-pox—cow-pox—pertussis—scarlatina—measles—rheumatism, acute or chronic—rheumatic or neuralgic pains—palpitation of the heart—winter cough—hæmoptysis—epistaxis—hæmatemesis—indigestion—piles—syphilis, primary or secondary—gonorrhœa.

Accidents, as blows—strains—heavy falls.

B. SPECIAL PREVIOUS HISTORY.

(*i. e.* of the disease for which advice is sought).

Exact date of commencement. Then the symptoms should be taken down as nearly as possible in the patient's own words.

C. PRESENT STATE.

(*a.*) The patient should be called upon to state what he feels to be the matter with him. Answers should be taken down in his own words. No leading questions should be asked.

(*b.*) The patient should then be questioned concerning the following subjective symptoms, supposing that they have not been mentioned :—Pain—aching and soreness—feelings of uneasiness or prostration—flushes—coldness or shivering—tingling or burning—alterations of vision—hearing—touch—taste or smell—numbness of extremities—altered or impaired cutaneous sensibility—dyspnœa—desire to cough or cough—palpitation—choking—dysphagia—degree of appetite—thirst—nausea—desire to micturate—griping—tenesmus, etc.

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[1] Dr. Parkes has informed us, in answer to our application to be permitted to publish his plan, that he has been obliged to sacrifice exact scientific arrangement, in order to make the examination as direct and short as possible, for the convenience of the physician as well as of the patient. But it is quite easy afterwards to bring together all symptoms connected with any organ, as for example, the lungs, if an exact arrangement be required.

(*c.*) Objective symptoms (including any subjective symptoms which it is inadvisable to sever from the objective symptoms).

In noting these symptoms, it is advisable, in fevers and general constitutional diseases, to go regularly through the following list; but in other cases the examination may be commenced with that part of the body to which the previous examination has seemed to point as the seat of the disease; for example, great palpitation, dyspnœa, and pain in the cardiac region, should be followed by examination of the heart; cough and hæmoptysis, by that of the lungs, etc.

1. General Objective Symptoms, including a short description of the attitude, manner, aspect of the patient—emaciation—muscular strength—paralysis—twitches—convulsions, etc. Also at this time, before the patient is stirred, the pulse at the wrist and the respirations should be counted.
2. Surface.
   (*a.*) Colour of skin.
   (*b.*) Spots—sudamina or eruption of any kind.
   (*c.*) Dry or moist—if moist, perspiration acid or alkaline—smell.
   (*d.*) Temperature of skin (in axilla and groin).
   (*e.*) Œdema—flaccidity—rigidity of limbs.
   (*f.*) Superficial veins.
   (*g.*) Conjunctivæ—irides—cheeks—expression.
   (*h.*) Colour of lips and inside of mouth, including tonsils, tongue and palate; temperature; quantity and reaction of saliva.
   (*i.*) Joints.
   (*k.*) Nails.
3. Head—form of head—circumference—breadth—intellect—hearing.
4. Larynx—front of neck generally, pulsation in neck, venous or arterial, etc.; voice—tracheal rhonchus, etc.
5. Examination of front of Chest and Abdomen—(Patient recumbent).
6. Chest.
   (*a.*) General shape, etc.—degree of prominence of clavicles—post and infra-clav. spaces—post-sternal space—any general or partial bulging or retraction, etc.—width of intercostal spaces.

Lungs.

   (*a.*) Expansion as ascertained by the eye and hand—intercostal spaces marked or not in full inspiration—full expiration—relative duration of inspiration and expiration.
   (*b.*) Expansion as ascertained by the chest-measurer.
   (*c.*) Measurement of chest—circumference immediately below axillæ—right and left—full expiration—full inspiration.

At point of ensiform cartilage—full expiration—full inspiration.

Sterno-clav. to nipples—middle line to nipples.

   (*d.*) Vocal fremitus—in infra-clav.—mammary and lateral regions—friction or rhonchal fremitus—purring tremor or thrill of any kind.
   (*e.*) Percussion—post-clav.—clav.—infra-clav.—first on one, then on the other side—post-sternal—sternal throughout—mammary—infra-mammary—axillary—infra-axillary.
   (*f.*) Respiration—in same regions above—distinguishing between inspiration and expiration, in easy, deep, and tussive respiration.
   (*g.*) Voice in same parts.

Heart.

   (*a.*) Apex—place where—kind and strength of impulse—whether any pulsation elsewhere—purring tremor, undulation, etc.
   (*b.*) Percussion note of 1st, 2nd, 3rd, 4th, and 5th left cartilages and 4 first interspaces, as compared with right side—percussion for inner or right line of cardiac dulness; then for the outer or left line—shape of dulness.
   (*c.*) *Sounds*—2nd right cartilage—2nd left—midsternum—apex—point

of ensiform cartilage—outside left nipple—top of sternum—in neck—is there any friction?

(In cases of diseased lungs and heart, mark sounds of heart all over chest, front and back.)

The first and second sounds must be listened to separately.

7. Abdomen.

(*a.*) Shape—circumference round navel, if there be any abdominal disease—resistance of walls—tenderness.

(*b.*) *Liver*—upper and lower edge in full expiration and inspiration—height of liver (also length of trunk from upper edge of sternum to pubis)[1]—can edge be felt?—is it rough—smooth—round—sharp, etc.?

(*c.*) *Spleen*—size by percussion—auscultation for splenic murmurs.

(*d.*) Percussion of abdomen generally, marking out if any dull parts.

(*e.*) Auscultation if necessary—temperature if abdominal disease present.

Special examination for tumours—fluctuation.

8. Examination of the Back.

(Patient sitting up with the arms crossed.)

General Inspection—supra-spin. fossæ—movements of ribs by eye and chest-measurer—general or partial bulging—dorsal arch—curvature of spine—tenderness of spine.

Vocal fremitus.

Percussion—supra-spinous fossæ—infra-spinous—interscapular angles of scapulæ—bases—mark out lower edge of lungs—auscultation for respiration and voice in same regions.

Examine loins and mark out kidneys by percussion—grasp kidneys.

9. Excretions.

Expectoration—quantity in twenty-four hours—colour—consistence—form—surrounded with thin fluid or not—aërated or not—microscopic characters—reaction.

Urine—quantity in twenty-four hours—specific gravity—reaction—appearance and colour—does it contain albumen—sugar—bile?—quantitative analysis.

Sediment—character to naked eye—microscopic examination—chemical tests.

Fæces—number of stools—quantity—colour—reaction—microscopic characters.

10. Blood—microscopical and chemical examination—physical appearances—of clot and serum—reaction, etc.

In certain cases, examination of uterus by touch and speculum—of anus and urethra.

In cases in which it is not possible to go fully into the examination, after a short general previous history, the special previous history should be followed by an examination into the part to which the symptoms point as the seat of the disease; then in addition to the usual subjective and objective symptoms, the following points may be more or less closely examined:—

1. The apices of the lung in front and behind.
2. The sounds of the heart.
3. The condition of the abdomen as to fulness, tenderness, etc.
4. The state of the urine and fæces.

Dr. Walshe's method differs from this, in the minuteness with which the circumstances connected with the previous health and condition of the patient are recorded.

The clerks not only take down the cases to the dictation of the physician, but on them devolves especially the examination of the urine. In every case, the quantity of urine passed in twenty-four hours is recorded; the

[1] This point is merely inserted to aid an inquiry in which Dr. Parkes is at present engaged.

urine is tested for albumen, sugar, and bile, and the microscopic characters of the sediment (if any) are noted.[1]

The minute accuracy with which the cases have been taken in University College Hospital for a number of years by the successive physicians, has led to the accumulation of an immense number of complete histories of disease in the hospital registers. But the immediate effect on the mind of the student of this careful investigation, is still more important. He receives at once the lesson, that those who have from their vast opportunities become most conversant with disease, yet deem the severest scrutiny essential before they pronounce on the nature of the affection they have before them. He is at once taught, that an accurate diagnosis is the great aim of his teachers, and that the successful attainment of this object requires on their part no slight labour and consideration. And in the extraordinary success with which the exact condition of organs can be often determined, the student will learn that this labour and consideration may meet with ample reward, as he may, on the other hand, perceive, in the errors which must occasionally occur, that there is yet room and verge enough for amplification and correction in the mode of investigating disease. Clinical lectures are delivered twice a week by the special Professor of Clinical Medicine, and once a fortnight by each of the other physicians. In these lectures, each case is reviewed after its termination ; or, as we understand is Dr. Parkes's present plan, the cases while still in hospital, particularly those likely to have a fatal termination, are minutely considered, so that the students may have frequent opportunities of comparing symptoms and *post-mortem* lesions, and of observing how far the grounds for the diagnosis have been found valid.

In addition to clinical lectures, the physicians are in the habit of lecturing upon cases at the bed-side, and the pupils are also called upon, as far as the time will permit, to examine the patients for themselves. But, in the space of time which can be devoted to the visit, it has been found impossible to give the student sufficient instruction as to the manner of conducting this examination. It was for the purpose of supplying this deficiency, that the special Professorship of Clinical Medicine was founded.

The increased accuracy of diagnosis which is becoming so conspicuous a feature in the profession, is owing to several causes, but most particularly to the cultivation of various kinds of physical examination. In cases in which the ancient physician, or even the physician of sixty years since, depended for his diagnosis chiefly on the symptoms derived from the sensations of the patient, or on the few objective symptoms which were appreciable by him (as, for example, the state of the skin, the tongue, the expectoration, the pulse, or the physical appearance of the urine) the physician of the present day brings to bear a host of appliances for a closer investigation. He measures, he percusses, he listens, he weighs, he has recourse, in fact, to a number of means by which he ascertains the state of the patient, without a word being uttered by either party. Within the last few years, fresh modes have become available ; and the microscope and the test-tube have come into daily use in the chambers of the sick. So important and so accurate is the information which the combined use of these methods gives, that it is not too much to assert, that he who can avail himself of these aids to physical diagnosis, need not fear to affirm the diagnosis after a proper investigation, in almost all general diseases, and in the infinite majority of local chest and abdominal complaints, and in many head affections which come before him.

The acquirement of these several methods is a study, which we have yet

[1] We have not alluded to the office of Physician's Assistant, which in University College is filled by old students, who are elected every six months by *concours*. It is a post of great importance, and very instructive to those who hold it.

to see take its place by the side of those which are deemed most essential to the education of a physician. What his dissections are to the anatomist, or his balance and test to the chemist, or his measurements and calculations to the astronomer, so is his stethoscope, his measurer, his test tube, his pleximeter, his speculum, or his microscope[1] to the practising physician. They are his tools, his implements of labour; and unless he learn to use them, he would, with all the theoretical knowledge in the world, be like, when brought to the bedside of the sick, an anatomist who had never touched a scalpel, or an astronomer who had only read of telescopes. And it may be safely asserted, that the student who can use well these modern appliances, will be able, after he has seen only a small number of cases of disease, to make a more accurate diagnosis, than the old routine practitioner, whose so-called "experience" consists only in the inaccurate observation of multitudes of patients whose diseases he never fully comprehends.

Each physician in University College Hospital is, of course, a clinical professor; but those who are not the special professors, necessarily and most usefully tend, in their instructions, towards that point where lie their favourite studies. Thus, Dr. Walshe (in addition to the usual general instruction concerning the course of nature and treatment of diseases) is most full and explicit in all information relating to physical examination. Dr. Garrod, on the other hand, is rather led, by the prevalent nature of his studies, to consider more closely the chemistry of the fluids, and the action of medicines, etc. Dr. Murphy, again, gives practical instruction in the use of the speculum, and other means which are used in the examination of the female organs.

The duties of a clinical professor, however, embrace the whole range; and he should be at once competent to use the stethoscope and the speculum, to analyze blood or urine, and to distinguish, under the microscope, the histological elements which most especially aid in diagnosis.

In order to teach the principles of physical diagnosis, the special Professor of Clinical Medicine gives, to small classes, practical instruction at the bedside, on the position and movements of organs, on the stethoscope, the art of percussion, measurement, etc. Each of these courses which have been regularly given since the foundation of the chair, occupy about six or eight weeks, a space of time in which the principal facts can be mentioned and illustrated; so that, with the necessary labour which every student must bestow upon his own improvement, a competent working knowledge may be acquired. The applications of chemistry and microscopy to diagnosis, are brought forward as occasion may arise.

The *post-mortem* examinations are conducted by the physicians, who dictate aloud to the clerks the morbid alterations. This is, we believe, a better plan for the instruction of students, than leaving the *post-mortem* examinations to a special officer, who does not necessarily see the patients during life.

In order to encourage students to examine patients for themselves, and to commence the necessary training of those powers of observation which are to be so largely exercised in after life, gold and silver medals are awarded, every winter and summer term, to the authors of the best series of cases.

Such are, we believe, the means of instruction at University College Hospital. Altogether, the system pursued is a good one; and it will most probably be rendered still more efficient, as the officers of the hospital confess that there exist deficiencies in their method, and are constantly endeavouring to remedy them.

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[1] It is evident, that as the applications of chemistry and the microscope to medicine develop themselves, the special assistance which these methods give to diagnosis, will become a distinct branch of tuition, that is to say, distinct from the general subject of the chemical and microscopic histories of disease. At present, however, the subject is too little advanced to permit this to be done.

NORTH LONDON EYE INFIRMARY.

This charity was established eight years ago. In the annual report for 1850, it is stated that during 1849, 1214 patients were treated: of this number 913 are mentioned as cured, 111 as relieved, 27 as incurable, and 163 as under treatment.

The following is a summary of the 161 Operations:

Cataract—Extraction, 11—Solution, 19—Depression, 2 ...	32
Tumours	41
Obstructed Lachrymal Duct	8
Entropium and Ectropium	5
Artificial Pupil	4
Minor Operations	71
	161

The affairs of this Institution are regulated by a committee annually chosen from the subscribers. Mr. Dalrymple is consulting surgeon, and the attending surgeons are Mr. White Cooper, Mr. G. Pollock, Mr. Pyle, and Mr. H. B. Norman. There is a surgeon daily in attendance from 10 to 11 A.M., Sundays excepted. Patients suffering from severe diseases, or requiring operation, are admitted into the house at the discretion of the surgeons: and in very urgent cases, the patients are allowed at all times to apply at their private residences.

The general character of the treatment pursued at the North London Eye Infirmary, is that which was so efficiently practised by the late Mr. Tyrrell, at Moorfields. Careful attention is paid to the general health, and especially to the removal of the causes of disease; depletion, by the abstraction of blood, is very little practised, and violent escharotic drops and ointment are quite proscribed, having been found not only unnecessary, but pernicious. Observations have recently been made to some extent, on the utility of the *neutral acetate of lead in granular lids:* although undoubtedly of service, it is not found to work the wonders which some foreign writers have ascribed to it, but it is regarded, at the North London Eye Infirmary, as a very useful auxiliary to other treatment. Mr. White Cooper has been trying the newly introduced medicine, *sumbul*, and is well satisfied with it. He says that it is of decided service in cases of debility as a tonic and restorative. In combination with colchicum, he recently found the etherial tincture of sumbul, of essential service, in the case of a patient whose constitution had been greatly broken by a dissipated life, and seven mercurial salivations. Being severely attacked with arthritic sclero-iritis, the ordinary treatment failed to subdue the attack; but on a trial being made of the combination above mentioned, he rapidly recovered. The *hydrocyanic acid vapour*, which has lately been lauded as a remedy for cataract, in a Canadian work, is often used to remove corneal opacities, in which it is decidedly beneficial; but though tried, it has never been found to produce the slightest effect either upon cataract or amaurosis. *Cod-liver oil* is found to be extensively useful in strumous ophthalmia. Children recover rapidly under its use, with mild local treatment, and counter-irritation.

At the present time, catarrhal and rheumatic affections of the eye appear to be very rife, but yield readily to treatment. In rheumatic sclerotitis, bark and soda, with or without colchicum, is found extremely beneficial.

[*In future we propose to prefix to our first notice of each Hospital a complete list of its Medical and Surgical Staff.*]

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

November 26, 1850.

Dr. Todd in the Chair.

Chorea attended by Softening of a portion of the Spinal Cord. By R. Nairne, M.D. The patient was a lad, aged 17, who had been, from the age of 12, the subject of occasional attacks of articular rheumatism, with endocarditis and other complications. He was seized with Chorea ; and was admitted into St. George's Hospital on the 27th of last June. He was somewhat relieved by the treatment for the first day or two ; he then became more restless, delirious, more feeble, and violently convulsed. Some hours before his death, the convulsive movements ceased, and he became comatose. On *post-mortem* examination, twelve hours after death, the veins and sinuses of the cranium and spine were found congested. About an inch of the entire thickness of the spinal cord, opposite the third and fourth dorsal vertebræ, was white, softened, and almost diffluent, the rest of the cord being in its natural state. The brain was firm, and injected with blood. The pericardium was adherent ; the mitral valve was fringed with small vegetations. The lungs were congested.

Dr. Nairne referred to four cases, in which softening of the spinal marrow had been found in conjunction with Chorea : but he did not think there was any reason for supposing that the latter was an effect of the former. He remarked that the fact of the existence of sensation, and the transmission of nervous impressions to the palsied muscles of the lower extremities, notwithstanding the softening of the cord, showed that we had yet much to learn respecting its functions.

December 10, 1850.

Dr. Addison, President, in the Chair.

Case Illustrating Difficulty of Diagnosis in Tumours of the Superior Maxilla. By Prescott G. Hewett, Esq. A young man, aged 25, was admitted into St. George's Hospital, in May 1848, under the care of Mr. Hewett, with a tumour in the situation of the Superior Maxilla, encroaching somewhat on the orbit, and extending into the pharynx : it had existed five or six years. The patient frequently had hæmorrhage from the nostril on the affected side. It was determined to remove the tumour, which was thought to arise from the antrum. During the operation, however, it was found that the tumour, which was fibrous, originated from the back of the nasal cavity, and compressed the antrum. It had entered the orbit through the sphenomaxillary fissure, and passed backwards into the sphenoidal sinuses. Chloroform was administered before the operation, and a very little during its performance. During the operation, syncope ensued, and the patient was laid down, and a stimulant given to him. When he had recovered, the operation was proceeded with ; but the syncope returning, the patient was carried to bed. The whole time occupied in the operation was twenty minutes. He recovered his consciousness, but remained in a state of collapse, and died about an hour after the operation. As there had been difficulty of breathing just before his death, the crico-thyroid membrane was divided, and artificial respiration performed, but without effect. When the membrane was divided, some frothy blood issued from the larynx. At the *post-mortem* examination, portions of the tumour were found adhering to the sphenoid bone. The

trachea and bronchi, down to their minutest ramifications, contained frothy blood, and there were spots of ecchymosis throughout the lungs, denoting that some of the blood had entered the air-cells. The author considered that the blood must have got into the lungs during the operation, and that the chloroform might have impaired the irritability of the glottis, so as to favour its admission. He would be deterred from employing that agent in future cases of this kind.

MEDICAL SOCIETY OF LONDON.

November 30, 1850.

J. Risdon Bennett, M.D., President, in the Chair.

Artificial Oviduct for the Cure of Ovarian Disease. By Mr. I. B. Brown. Mr. Brown exhibited a preparation taken from the second patient referred to at p. 1189 of this Journal for December 1850. Perfect adhesions had been established between the multilocular cysts, and the abdominal parietes. The uterus was healthy, and the other ovary free from disease. He had lately been informed, that the operation had been several times performed in Paris with success; but that adhesion of the abdominal parietes was effected by pinning the cyst to the walls of the abdomen some days before opening it.

Case of Cauliflower Excrescence from the Os Uteri: with Remarks. By Dr. Cormack. [This paper will be published as an original article in this Journal.]

December 7, 1850.

J. Risdon Bennett, M.D., President, in the Chair.

Crowing Inspiration in Infants. By Mr. Cox. The causes were considered under the heads of *predisposing*, *exciting*, and *proximate*. Among the proximate causes, Mr. Cox considered irritation of the trifacial nerves as most frequent. He believed that cutaneous diseases, such as eczema, were often the source of morbid action. He then made some remarks on the disease, contending that it consists in spasm of the laryngeal constrictors; and stated some objections to Dr. Ley's theory of its depending on paralysis. He endeavoured to trace an analogy between crowing inspiration and epilepsy, arguing—1. That the symptoms were identical in type: 2. That persons who in infancy are affected with the one, frequently become subjects of the other in adult age: 3. Epileptic patients often suffer from a suffocative spasm of the larynx at the onset of a seizure. In the symptoms, it was interesting to observe how distant parts of the diastaltic nervous system were affected; producing tenesmus, strangury, and obstinate closure of the sphincters. The remedies recommended were, chloroform during the paroxysm, citrate of iron as a tonic during the intervals, lancing the gums, and hydrocyanic acid to subdue the irritable condition of the spinal cord, after all sources of irritation connected with the excitor nerves had been removed. The dose of the latter remedy was a quarter of a minim three times a day to a child three years old, increased, if necessary, to half a minim. The author then read reports of twelve cases, nine of which had recovered under the use of chloroform and hydrocyanic acid. In one of the three fatal cases, there was aneurism of the arch of the aorta; and in another, there was myelitis, from a fall on the spine two months previously.

December 14, 1850.

J. Risdon Bennett, M.D., President, in the Chair.

Excision of the Head of the Femur. By Mr. Haynes Walton. The conclusion at which Mr. Walton arrived from an examination of this subject, was that there were cases of hip-joint disease, where the disease was limited to the

head of the femur, the acetabulum being healthy, or no longer implicated (that is, having recovered if it had been diseased), the head of the bone dislocated and lying in a sinus or abscess cavity, the patient sinking from external suppuration, there being no internal disease, or other manifestation of external local injury, in which the removal of the head of the femur would save life. He considered the operation, when the head of the femur was dislocated and lying loose, much less severe than is commonly imagined.

DECEMBER 21, 1850.

FRANCIS HIRD, ESQ., VICE-PRESIDENT, IN THE CHAIR.

ACRANIAL FŒTUS. MR. BORLASE CHILDS exhibited a fœtus, in which the bones forming the vault of the cranium were deficient, and the place of the brain was occupied by a spongy vascular mass, apparently loosely connected with the spinal cord.

FUNCTIONAL PARALYSIS. A paper on this subject was communicated by MR. EDWIN LEE.

MISCELLANEOUS INTELLIGENCE.

ROYAL SOCIETY. The Anniversary Meeting of this Society was held on Saturday, November 30th. The President, the Earl of Rosse, delivered the usual address. The Copley medal was awarded to Professor Hansteen, of Denmark, for his researches in astronomy; the Romford medal to M. Arago, for his numerous discoveries and improvements in optical science. The Royal medals were awarded to Professor Graham, of University College, for his contribution to the Transactions of a paper on the Motion of Gases through Tubes; and to Mr. Brodie, son of Sir Benjamin Brodie, for his paper on the Chemical Constitution of Wax. The following officers, whose names constituted the House-List, were elected for the ensuing year. PRESIDENT. The Earl of Rosse, K.P., M.A. TREASURER. Lieut.-Col. E. Sabine, R.A. SECRETARIES. Samuel Hunter Christie, Esq., M.A.; Thomas Bell, Esq. FOREIGN SECRETARY. Captain W. H. Smyth, R.N. OTHER MEMBERS OF THE COUNCIL. John Joseph Bennett, Esq.; William Bowman, Esq.; Sir Benjamin Collins Brodie, Baronet; The Rev. Professor Challis, M.A.; Lieut.-Gen. Sir H. Douglas, Baronet, G.C.B.; Sir P. de Malpas Grey Egerton, Baronet; John Forbes, M.D.; Marshall Hall, M.D.; Gideon A. Mantell, Esq., LL.D.; Professor W. A. Miller, M.A.; Sir Roderick Impey Murchison, M.A.; Richard Phillips, Esq.; Rt. Hon. Sir Frederick Pollock, M.A.; George Rennie, Esq.; Edward Solly, Esq.; Lord Wrottesley.

The total receipts during the past year, exclusive of the balance, amounted to £3176 19*s.* 6*d.*, and the expenditure during the same period, exclusive of the sum of £600 invested in the funds, was £3000 5*s.* 7*d.* Under the head of Donation Fund, the Society has paid £250 during the past year, as follows: To Dr. Hofmann, for Chemical Investigations, £100; to Mr. Miller, for Meteorological Observations, £50; to Mr. Newport, for Physiological Investigations, £50; to Dr. Frankland, for Chemical Investigations, £50.

VETERINARY MASSES. Dr. Kreuzer, Professor at the Veterinary College, at Munich, has been peremptorily removed from his office, in consequence of his having in his lectures adverted to the superstitious practice, of which some recent instances had occurred, of the people calling in the Franciscans to read masses for their cattle during an epidemic.

EXHIBITION OF 1851. MR. ERASMUS WILSON has been appointed Chairman of the sectional committee for the exhibition of surgical instruments at the forthcoming display of the industry of all nations.

Bengal Medical College. This institution, which has now been established fourteen years, continues to flourish vigorously. It was here that the superstitious prejudices of the Hindoos against the handling of dead bodies, were first overcome by the example of a native student; and we find that, during the last session, sixty-three students were in attendance on anatomy and physiology, and during that time had dissected two hundred and twenty bodies, and performed operations on ninety-one. In connexion with the College, a hospital has just been established for the relief of the sick poor of all classes and creeds in the city of Calcutta, and particularly for those affected with epidemic diseases; the money for building which, has been partly raised by public subscription, and the remainder by private native liberality. Dr. Goodeve, the Professor of Midwifery, has most generously placed in the hands of the Council of Education, the sum of 3600 rupees, in government securities, for the perpetual maintenance of a midwifery scholarship of 16 rupees a month, for the best student of the midwifery class; to be awarded only to matriculated students of the medical college, who are *bonâ fide* natives of India, of Hindoo or of Mahommedan parentage, as long as such young men can be found in any way qualified to perform the duties of the office.

University College. We regret to find that Professor Graham is in very bad health. Professor Sharpey is not to be transported to Edinburgh, as was lately rumoured.

Bloomsbury Dispensary. The following gentlemen are candidates for the appointment of Physician to this Dispensary (to which is attached, as also to the surgency, a salary of £100 a-year), Dr. Goodfellow, Dr. George Johnson, Dr. Steggall, and Dr. Pidduck.

Marylebone Dispensary. The Governors of this Institution, we are happy to learn, propose to resume the payment of their medical officers. That the medical officers of all charities are not remunerated, is to be regretted.

Hagyard *v.* Coates. On the 19th inst., in the County Court, Bridlington, Mr. Hagyard, surgeon of Hunmanby, brought an action against J. Coates for 15*s.*, for attendance in midwifery upon his wife. The defendant pleaded his inability to pay this amount. His Honour, Judge Raines, inquired the usual amount paid by the Board of Guardians in cases of midwifery; and was informed that 10*s.* 6*d.* constituted the sum paid for confinements, without regard to distance, which induced His Honour to give a verdict of 10*s.* 6*d.* for the plaintiff. Although the plaintiff, a most respectable man, swore that Coates was able to pay the amount at once, the Judge directed him to pay 2*s.* a month. Thus the Profession will perceive that County Court law professes to regulate the charges of medical men by the "*penny wise*" folly of the Board of Guardians; and crowns the insult by the miserable and unnecessarily tedious manner in which the payments are made. It is high time that some Legislative measure was enacted to restrain the oppression which is daily victimising the honest practitioner from east, west, north, and south. [*Medical Times, December* 28, 1850.]

Hunterian Oration for 1851. Mr. R. A. Stafford has been appointed by the Council of the Royal College of Surgeons to deliver the annual oration in memory of John Hunter, on the 14th of February, 1851.

Parisian Medical Society. The following gentlemen have been elected office-bearers, for the next twelve months: Dr. J. W. Begbie, *President;* Dr. George Fleming, *Vice-President;* Dr. W. R. Sanders, *Secretary;* and R. Sarrell, Esq., *Treasurer.*

Self-Supporting Dispensaries. The tide has strongly set in against the establishment of these institutions in London. As the Society have not yet published their laws, nor a list of their office-bearers, we feel quite unable to speak for or against the present movement.

St. Mary's Hospital. The 28th Dec. was the last day on which candidates for the medical and surgical appointments at this institution were allowed to send in their applications. The officers to be appointed are, three physicians, three assistant-physicians, three surgeons, three assistant-surgeons, one physician-accoucheur, one surgeon-accoucheur, one aural surgeon, and one ophthalmic surgeon. The candidates are very numerous. For the office of secretary (lately filled), it is said that there were *three hundred* candidates! The emolument is £200 per annum.

Cholera in Jamaica. It is impossible to describe the desolation and dismay which the Cholera is causing in Jamaica. Not only are the medical practitioners in the island numerically inadequate for the fearful emergency, but we see by the local newspapers that opium and other necessary medicines, are not procurable in sufficient quantity.

APPOINTMENTS.

Bushnan, Dr. J. S., appointed Senior Physician to the Metropolitan Free Hospital, Devonshire Square.

Eddison, Booth, Esq., elected Surgeon to the Nottingham General Hospital, in the room of G. M. White, Esq., resigned.

Edwards, Vertue, Esq., appointed Resident Medical Officer to the Hospital for Consumption at Brompton.

Rowland, Dr., elected Assistant-Physician to the Charing Cross Hospital.

Simpson, Professor J. Y., elected President of the Royal College of Physicians, Edinburgh.

Williams, W. J., Esq., elected Resident and Visiting Surgeon to the Tower Hamlets Dispensary.

OBITUARY.

Allender, Dr. G., Assistant-Surgeon R.A., at Poona, in August last.

Andrews, Richard, Esq., Surgeon, late of Great Stanmore, Middlesex, at Uxbridge, aged 75, on 11th December.

Asbury, D., Esq., Surgeon, at Enfield, Middlesex, from the effects of a wound received while making a *post-mortem* examination, aged 23, on 25th October.

Brodie, Patrick, Esq., late Assistant-Surgeon, 13th Light Infantry, at Ordnance Place, Chatham, on 1st of December.

Calvert, Robert, M.D., Deputy-Inspector of Military Hospitals, at Camden New Town, on 12th December.

Courtenay, John Garnett, Esq., Staff-Surgeon, late Principal Medical Officer of New Zealand, on board the barque *Clara*, off the island of St. George, Azores, on 28th November.

Cunningham, Dr. Thomas, at Glasgow, of congestive apoplexy, on 10th October.

Davis, J. G., Esq., Surgeon, at Birmingham, from the effects of a wound received in making a *post-mortem* examination, aged 42, on 5th November.

Dorrington, Thomas, Esq., Surgeon to the Manchester and Salford Lying-in Hospital, at Manchester, aged 33, on 5th November.

Goss, John, Esq., Surgeon, at 36, Paternoster Row, aged 51, on 6th December.

Gordon, Dr. William, late of Montego Bay, Jamaica, at Perth, aged 42, on 24th October.

Guthrie, Dr. James, Assistant Colonial Surgeon, and formerly Assistant-Physician to the Royal Edinburgh Asylum, on board the barque *Atlantic*, at Trinidad, aged 34, on 26th September.

Heath, Dr. G. T., at Hoxton Old Town, aged 67, on 10th December.

Hume, Thomas, M.D., at Rose Bank, Hanwell, Middlesex, aged 81, on 21st October.

Jackson, Dr. Francis, at Dorchester, aged 43, on 14th November.

Ledingham, G., Esq., Surgeon, 83rd Regiment, at Poona, on 14th September.

Logan, Dr. D., Surgeon to the Nepaul Residency, in Bengal, lately.

Maitland, Dr. M., at St. Omer's, aged 81, on 26th November.

M'Lagan, Dr. John, at Demerara, on 11th October.
O'Connor, Dr. P., of fever, in Egypt, lately.
Philip, John, Esq., Assistant-Surgeon R.N., at Edinburgh on 13th December.
Ranson, John, Esq., Surgeon, at Ipswich, aged 33, on 27th October.
Royer-Collard, M., Professor of Hygiène at the Faculty of Medicine, Paris, aged 47, lately.
Saunders, James, Esq., Surgeon, at Foulsham, Norfolk, aged 67, on 12th Nov.
Simes, J. G., Esq., Surgeon, of Hungerford, aged 33, on 12th November.
Tanner, R. E., Esq., Surgeon, at South Molton, aged 56, on 2nd November.
Taylor, Dr. John, late Surgeon R.A., at 72, Upper Berkeley Street, Portman Square, aged 79, on 22nd November.
Walker, Dr. A., Surgeon in the Nizam's army, at Bolarum, of a fall from his horse, on 5th September.
Wheeler, James, Esq., Surgeon, at Wokingham, Berks, aged 84, on 15th Nov.
Whymper, Sir William, M.D., formerly Surgeon R.A., at Dover, aged 65, on 28th November.
Wilkinson, Dr. Charles H., in Pulteney Street, Bath, aged 87, on 15th October.
Wylie, Sir James, M.D., many years Physician to his Imperial Highness the Grand Duke Michael of Russia, at St. Petersburgh, aged 55, on 9th October (O.S.)
Yarnold, Dr. G., at Crookwell, Goulbourne, aged 38, on 20th May.

BOOKS RECEIVED.

Brodhurst on the Crystalline Lens and Cataract. London: 1850. Burnett on the Philosophy of Spirits. London: 1850. Druitt's Surgeon's Vade-Mecum. Fifth Edition. London: 1850. Higginbottom on the Development of the Triton and Frog. London: 1850. Hoskins and Mansell on Cholera and Small-pox. Guernsey: 1850. Prospectus of Epidemiological Society. London: 1850. Sanders on the Spleen. Edinburgh: 1850. Skey's Operative Surgery. London: 1850.

POSTSCRIPT TO MR. W. R. WILDE'S ARTICLE ON THE OPHTHALMIA OF THE TIPPERARY AND ATHLONE UNIONS.

The following was received too late for insertion in the paper on the above subject, given at page 17 of the present Number.

"I have just received a communication from Dr. Reardon, in which he informs me that the School in Bank Place—a very much more healthly locality than the Corn-store in Meeting-house Lane—has been converted into an Ophthalmic Hospital. 'There are there', he says, in his letter of December 15, 'very good airy wards, two large yards, and a garden to walk and play in. There is also an abundant supply of fresh water, and the dwelling-house is very comfortable. We have now 250 cases in town, most in the convalescent state, and 130 in the country. We have now very few bad cases, and the disease has, with rare exceptions, lost that intensity and destructive character, which in some constitutions, paupers in particular, does not yield to any treatment. I saw such vast benefit from removing the patients to the country residence at Castle Lloyd, as you recommended, and such a marked alteration in the nature and character of this disease, and the health and appearance of the patients generally, but especially the young female children, that I am fully persuaded it alone would remove the epidemic, and that little treatment, besides strict attention to ventilation, cleanliness, warmth, and diet, would be required. Knowing this, we have lately succeeded in getting another Auxiliary Workhouse, four miles from town, to which place we have just sent 130 convalescents. The bad cases, and those requiring constant treatment, are kept at Bank Place. Many of the cases supposed to be blind four months ago are now brightening up.' "

TO CORRESPONDENTS.

The Communications of Dr. C. J. B. Williams, Dr. George Johnson, Mr. W. R. Wilde, Mr. Hird, Dr. Cormack, Mr. White Cooper, etc., in our next and following Numbers.